LITTLE RIVER GLEN STANDBY GENERATOR

4001 BARKER CT
FAIRFAX, VIRGINIA 22032

GENERAL NOTES

1. THE GENERAL CONTRACTOR AND ALL MAJOR SUBCONTRACTORS ARE REQUIRED TO VISIT THE JOB SITE PRIOR TO SUBMISSION OF BID; OTHERWISE BID WILL NOT BE ACCEPTED.

2. THE CONTRACTOR SHALL ENSURE THAT THE WORK SHALL BE DONE IN ACCORDANCE WITH ALL RULES, REGULATIONS AND APPLICABLE CODES. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS REQUIRED FOR THE WORK AND WILL OBTAIN AND PAY FOR ALL REQUIRED INSPECTIONS DURING THE COURSE OF THE WORK.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND REQUIRED TO VISIT THE AREAS ENTAILED WITHIN THE SCOPE OF WORK, VERIFY DIMENSIONAL DATA, AND REVIEW THE EXISTING CONDITIONS BEFORE PROCEEDING WITH THE WORK. ANY CONFLICTS WITH THE EXISTING CONDITIONS SHALL BE BROUGHT IMMEDIATELY TO THE ARCHITECT'S ATTENTION.

4. THE CONTRACTOR SHALL PROVIDE PROTECTION TO ALL EXISTING FINISHES AND SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGES CAUSED BY HIM OR HIS SUBCONTRACTORS. REPAIR AND/OR CLEAN ANY DAMAGED SURFACES, INCLUSIVE OF CARPET, USING PROCESSES RECOMMENDED BY THE MANUFACTURER TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE. REPLACE ANY FINISHES WHERE CLEANING OR REPAINTING HAS FAILED TO SATISFACTORILY RESTORE APPEARANCE.

5. THE CONTRACTOR SHALL SET AND SUPERVISE ALL SAFETY PRECAUTIONS IN CONNECTION WITH THE WORK THROUGHOUT THE PROJECT.

6. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE REMOVAL OF ALL DEBRIS FROM THE SITE ON A DAILY BASIS, AND TO KEEP THE CONSTRUCTION SITE CLEAN AND FREE FROM ANY OBSTRUCTIONS AT ALL TIMES. THE CONTRACTOR SHALL ALSO STORE ALL TOOLS, CONSTRUCTION EQUIPMENT, MACHINERY, SURPLUS MATERIALS, ETC. DAILY AND REMOVE THEM COMPLETELY AT THE COMPLETION OF WORK.

7. NORMAL FUNCTIONS OF THE OCCUPIED AREAS WITHIN THE SCOPE OF WORK AS WELL AS ADJACENT AREAS MUST CONTINUE DURING THE CONSTRUCTION PHASES. EVERY EFFORT SHALL BE MADE TO INSURE SUCH FUNCTIONS ARE NOT DISRUPTED. SCHEDULE ANY WORK WHICH MAY BE REQUIRED IN OCCUPIED AREAS DURING UNOCCUPIED HOURS AND OBTAIN PRIOR APPROVAL BY THE OWNER'S REPRESENTATIVE.

8. THE WORD "PROVIDE" SHALL BE DEFINED AS "FURNISH AND INSTALL COMPLETE AND READY TO USE."

9. UNLESS OTHERWISE SPECIFIED AND/OR INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL APPLY, INSTALL, CONNECT, ERECT, USE, CLEAN AND CONDITION MANUFACTURED ARTICLES, MATERIALS, AND EQUIPMENT PER MANUFACTURER'S CURRENT PRINTED RECOMMENDATIONS. ALL PRODUCTS, MATERIALS, AND EQUIPMENT PROVIDED ON THIS PROJECT SHALL BE SUITABLE FOR THE INTENDED SERVICE AND LOCATION AT WHICH THEY ARE INSTALLED.

10. THE CONTRACTOR SHALL PROTECT ALL WORK AND MATERIAL FROM DAMAGE BY HIS WORK, WORKMAN, SUBCONTRACTOR'S WORK OR SUBCONTRACTOR'S WORKMAN AND SHALL BE LIABLE FOR ALL DAMAGE THUS CAUSED.

11. ALL MATERIALS SUPPLIED FOR THIS CONTRACT SHALL BE FREE FROM DEFECTS IN MATERIAL, WORKMANSHIP, TITLE, AND SHALL BE OF THE TYPE AND QUALITY DESCRIBED HEREIN. IF IT BECOMES APPARENT WITHIN ONE YEAR FROM THE DATE OF ACCEPTANCE OF FINAL COMPLETION BY THE OWNER THAT THE MATERIALS DO NOT MEET THE WARRANTIES SPECIFIED ABOVE, THE CONTRACTOR SHALL CORRECT ANY DEFECT, INCLUDING NON-CONFORMANCE WITH THESE SPECIFICATIONS AT NO COST.

12. THE CONTRACTOR SHALL SECURE CERTIFICATES OF INSPECTION AND OF OCCUPANCY AS MAY BE REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER THE WORK AND DELIVER SAME TO THE OWNER UPON COMPLETION OF THE WORK.

ELECTRICAL GENERAL NOTES

1. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 70-2008 & APPLICABLE LOCAL CODES. THE MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED AS REQUIRED. ALL MATERIALS, AS A MINIMUM, SHALL BE NEW AND UNDERWRITERS LABORATORY (U.L.) LISTED.

2. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, CERTIFICATES OF INSPECTION, ETC. REQUIRED BY THE AUTHORITIES HAVING JURISDICTION OVER THIS WORK.

3. THE CONTRACTOR SHALL SUBMIT SIX (6) SETS OF SHOP DRAWINGS AND/OR MANUFACTURER'S LITERATURE, FOR ALL EQUIPMENT AND MATERIAL PROPOSED FOR INSTALLATION, TO THE OWNER'S REPRESENTATIVE FOR REVIEW AND APPROVAL PRIOR TO RELEASING AN ORDER FOR FABRICATION AND/OR SHIPMENT. EQUIPMENT AND MATERIAL INCLUDED SHALL BE ITEMS SUCH AS, BUT NOT LIMITED TO, SERVICE EQUIPMENT, GENERATOR, AUTOMATIC TRANSFER SWITCHES, LIGHTING AND POWER SWITCHES, DISCONNECTS, PANELBOARDS, BREAKERS, LIGHTING FIXTURES, OUTLET DEVICES, WIRING AND CONDUIT, ETC.

4. THE CONTRACTOR SHALL PROVIDE ALL SUPERVISION, LABOR, MATERIALS, EQUIPMENT, MACHINERY, AND ANY AND ALL OTHER ITEMS NECESSARY TO COMPLETE THE SYSTEM. IT IS THE INTENT OF THESE PLANS AND DOCUMENTS TO PROVIDE A COMPLETELY FINISHED, TESTED, AND OPERATIONAL ELECTRICAL SYSTEM. ANY APPARATUS, APPLIANCE, MATERIAL, AND/OR INCIDENTAL ACCESSORIES NECESSARY TO MAKE THE WORK COMPLETE AND READY FOR OPERATION, EVEN IF NOT COMPLETELY SHOWN, SHALL BE FURNISHED, DELIVERED AND INSTALLED BY THE CONTRACTOR WITHOUT ADDITIONAL EXPENSE TO THE OWNER.

5. THE CONTRACTOR AND SUB-CONTRACTORS ARE PRESUMED TO BE EXPERIENCED AND KNOWLEDGEABLE OF INSTALLATION PRACTICES AND LOCAL CODE REQUIREMENTS. EACH SHALL MAKE KNOWN TO THE OWNER'S REPRESENTATIVE, WITH THE SUBMISSION OF HIS BID, OF ANY MATERIALS OR APPARATUS BELIEVED TO BE INADEQUATE, UNSUITABLE, IN VIOLATION OF APPLICABLE LAWS, ORDINANCES, OR RULES, AND OF ANY NECESSARY ITEMS OF WORK OMITTED. IN THE ABSENCE OF SUCH WRITTEN NOTICE, IT IS MUTUALLY AGREED THAT THE CONTRACTOR AND HIS SUB-CONTRACTORS HAS INCLUDED THE COST OF ALL REQUIRED ITEMS IN THEIR BID, AND THAT THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE APPROVED SATISFACTORY FUNCTIONING OF THE ENTIRE SYSTEM WITHOUT EXTRA COMPENSATION.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING AND SEALING ANY AND ALL PENETRATIONS TO THE INTERIOR OR EXTERIOR OF THE BUILDING AS A RESULT OF HIS WORK, IN SUCH MANNER THAT THE DESIGN FIRE RATING IS MAINTAINED. CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES AS REQUIRED FOR NECESSARY PENETRATIONS. IN THE ABSENCE OF ARCHITECTURAL SPECIFICATIONS, PENETRATIONS SHALL HAVE A TWO (2) HOUR FIRE RATING AND BE WATERPROOF.

7. UNLESS OTHERWISE NOTED, ALL WIRING, CONDUIT, & CABLE SHALL BE INSTALLED CONCEALED IN OFFICE AREAS. ALL BRANCH CIRCUIT WIRING IN POWER ROOM AND IN EQUIPMENT AREA SHALL BE IN RIGID CONDUIT OR EMT WITH COMPRESSION FITTINGS. CONDUIT INSTALLED ON THE EXTERIOR OF THE BUILDING SHALL BE RGC IF EXPOSED AND PVC IF BURIED, UNLESS OTHERWISE NOTED. PROVIDE LIQUID TIGHT FLEXIBLE CONDUIT FOR ALL CONNECTIONS TO MECHANICAL EQUIPMENT AND EQUIPMENT THAT VIBRATES.

8. THE CONTRACTOR SHALL CONSULT DRAWINGS OF ALL OTHER TRADES FOR RELATED AND ADJOINING WORK AND COORDINATE INSTALLATION INTERFERENCES PRIOR TO ANY INSTALLATION OF MATERIAL. THE CONTRACTOR SHALL DEVELOP INSTALLATION DRAWINGS, AS REQUIRED TO COORDINATE THE INSTALLATION OF ALL MATERIALS, EQUIPMENT AND SYSTEMS NEW AND EXISTING. NO ADDITIONAL COMPENSATION WILL BE AWARDED FOR REMOVAL OF NEW MATERIAL, EQUIPMENT OR SYSTEMS THAT HAS NOT BEEN COORDINATED PRIOR TO INSTALLATION.

9. THE DRAWINGS ARE DIAGRAMMATIC AND DO NOT PURPORT TO SHOW ALL MATERIAL NECESSARY FOR A COMPLETE AND USEABLE SYSTEM. THE CONTRACTOR SHALL PROVIDE ALL MATERIAL NECESSARY FOR A COMPLETE USABLE SYSTEM AND SHALL BE RESPONSIBLE FOR APPROVAL OF WORK BY THE AUTHORITY HAVING JURISDICTION.

10. THE CONTRACTOR SHALL PROVIDE AND INSTALL BRACES/SUPPORTS REQUIRED FOR HIS WORK.

11. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR WITH ALL CIRCUITS IAW NFPA 70 ARTICLE 250 WHETHER SHOWN OR NOT ON THE PLANS. ADJUST FEEDER AND BRANCH CIRCUIT RACEWAY SIZE IF REQUIRED.

12. VERIFY EQUIPMENT LOCATIONS FOR ELECTRICAL ROUGH-INS WITH OWNER/USER REPRESENTATIVE, FIELD MEASUREMENTS AND WITH THE REQUIREMENTS OF THE ACTUAL EQUIPMENT TO BE CONNECTED. CONFLICTS WITH OTHER EQUIPMENT AND FEATURES SHALL BE RESOLVED PRIOR TO BEGINNING INSTALLATION.

13. WHERE MOUNTING HEIGHTS ARE NOT DETAILED OR DIMENSIONED, COORDINATE WITH OWNER'S REPRESENTATIVE. INSTALL ELECTRICAL SERVICES AND OVERHEAD EQUIPMENT TO PROVIDE MAXIMUM HEADROOM POSSIBLE.

14. COORDINATE THE INSTALLATION OF ELECTRICAL MATERIALS AND EQUIPMENT ABOVE CEILING WITH SUSPENSION SYSTEM, MECHANICAL EQUIPMENT AND SYSTEMS, AND STRUCTURAL COMPONENTS.

15. IN GENERAL, THE WORD "PROVIDE" MEANS TO FURNISH AND INSTALL.

16. ALL EQUIPMENT LUGS SHALL BE U. L. LISTED FOR 75 DEGREE C. FOR COPPER CONDUCTORS. WHERE EQUIPMENT IS NOT LISTED AS SUCH ADJUST CONDUCTOR AMPACITY IAW NFPA 70 ARTICLE 310, TABLE 16.

17. ANY BRANCH CIRCUIT REQUIRING A NEUTRAL SHALL BE PROVIDED WITH ITS OWN NEUTRAL. NO COMMON NEUTRAL SHALL BE PERMITTED.

18. THE CONTRACTOR SHALL PROVIDE CONNECTIONS FOR ALL ELECTRICAL EQUIPMENT INSTALLED ON THIS PROJECT. CONNECTIONS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND/OR CONSISTENT WITH INDUSTRY PRACTICE. PROVIDE INSULATED BUSHINGS WITH "SMOOTH, ROUNDED INSULATING SURFACES" WITH DOUBLE LOCKNUTS FOR ALL CONDUITS LARGER THAN ONE INCH ENTERING PANELBOARDS, BOXES, OR OTHER ENCLOSURES.

ABBREVIATIONS

A	AMPERE
AF	AMPERE, FRAME RATING
AFG	ABOVE FINISHED GRADE
AT	AMPERE, TRIP RATING
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
BLDG	BUILDING
BTC	BARE TINNED COPPER
C	CONDUIT
CKT	CIRCUIT
CND	CONDUIT
COP,CU	COPPER
CT	CURRENT TRANSFORMER
DISC	DISCONNECT
DWG	DRAWING
ELEC	ELECTRIC
FDR	FEEDER
FLA	FULL LOAD AMPS
FSS	FUSED SAFETY SWITCH
GFI	GROUND FAULT INTERRUPTER
G, GND	GROUND (ING) (ED)
HP	HORSE POWER
HZ	HERTZ
IAW	IN ACCORDANCE WITH
JB	JUNCTION BOX
JUNC	JUNCTION
KAIC	KILO-AMPERE INTERRUPTING CAPACITY
KW	KILOWATT
KWHR	KILOWATT HOUR
LTG	LIGHTING
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MFC	MAXIMUM FUSE/CKT BKR AMPACITY
MGB	MASTER GROUND BAR
MLO	MAIN LUGS ONLY
MOP	MINIMUM OVERCURRENT PROTECTION
MTD	MOUNT (ED) (ING)
MTR	METER (S) (ED) (ING)
N	NEUTRAL
N\L	NIGHT LIGHT (UNSWITCHED)
NFSS	NON FUSED SAFETY SWITCH
NTS	NOT TO SCALE
OPD	MAXIMUM OVERCURRENT PROTECTION DEVICE SIZE
OVHD	OVERHEAD
P	POLE
PH, ø	PHASE
PNL	PANEL
PWR	POWER
RCPT	RECEPTACLE
S/N	SOLID NEUTRAL
SERV ENTR	SERVICE ENTRANCE
SW	SWITCH
SWBD	SWITCHBOARD
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UTIL	UTILITY
W	WATT
WSA	WIRE SIZE AMPACITY
WP	WEATHERPROOF
WW	WIREWAY
XFMR	TRANSFORMER

DRAWING INDEX

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P1 PROPOSED GAS PIPING PLAN AND RISERS							
ELECTRICAL							
E1 SCHEDULES AND DETAILS							
E2 RISER DIAGRAMS							
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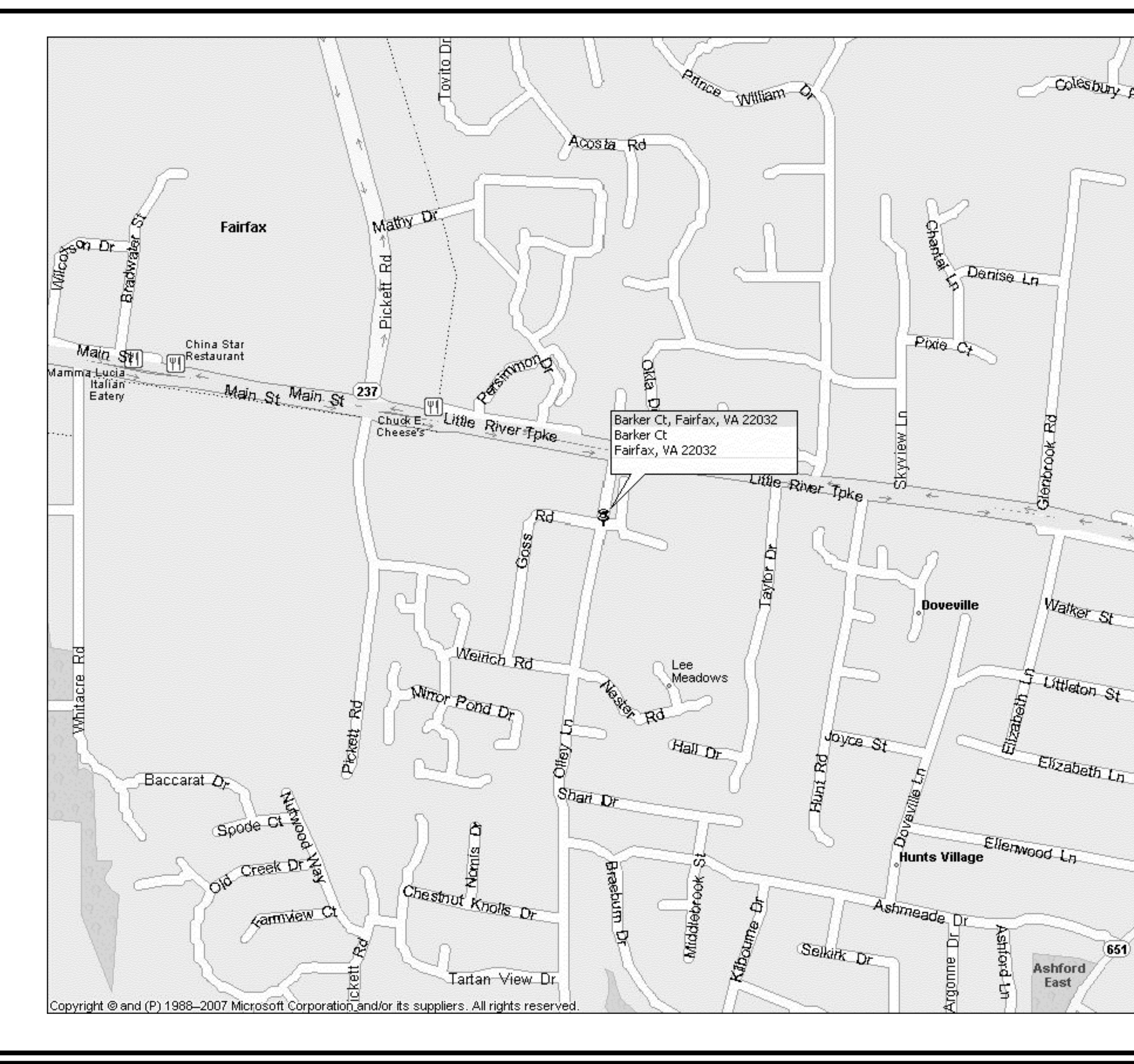
SYMBOL LIST

	DISCONNECT SWITCH (FSS = FUSIBLE, NFSS = NONFUSIBLE) POWER RATING, VOLTAGE AND POLES REQUIRED AS INDICATED ON EQUIPMENT SCHEDULE.
J (J)	JUNCTION BOX – SIZED PER NEC
RS	GENERATOR REMOTE MANUAL STOP STATION.
PNL.A 4	BRANCH CIRCUIT HOME RUN TO PANEL DESIGNATED. CONNECT CIRCUIT TO SINGLE POLE, 20A BRANCH CIRCUIT BREAKER IN PANELBOARD INDICATED. PROVIDE NUMBER AND SIZE OF CONDUCTORS AS INDICATED ON PANEL SCHEDULE. "N" INDICATES CIRCUIT NUMBER.
PNL A	PROVIDE BRANCH CIRCUIT PANELBOARD WITH DESIGNATION
100AF 100AT 3P	MOLDED CASE CIRCUIT BREAKER, RATINGS SHALL BE AS INDICATED. WHERE NOT INDICATED PROVIDE IAW INTENDED REQUIREMENTS.
100AF 100AT 3P	FUSED DISCONNECT SWITCH, RATINGS FRAME AND FUSE SIZE AS INDICATED. WHERE NOT INDICATED PROVIDE IAW INTENDED REQUIREMENTS.
	NATURAL GAS POWERED GENERATOR.
	3 POLE AUTOMATIC TRANSFER SWITCH WITH STAND ALONE ENCLOSURE, WITH RATINGS AS INDICATED ON THE ONE LINE DIAGRAM SHEET E1.
	3 POLE, 2-THROW, 250V SWITCH
	EXISTING POWER COMPANY APPROVED CURRENT AND POTENTIAL TRANSFORMER ENCLOSURE.
(M)	EXISTING POWER COMPANY APPROVED METER SOCKET.
(2)	SEE NOTE ON SHEET WHERE SYMBOL OCCURS.
(E)	INDICATES EXISTING DEVICES, EQUIPMENT OR COMPONENTS TO REMAIN, U.O.N.
(R)	INDICATES EXISTING DEVICES, EQUIPMENT OR COMPONENTS TO BE RELOCATED, U.O.N.
(X)	INDICATES EXISTING DEVICES, EQUIPMENT OR COMPONENTS TO BE REMOVED, U.O.N.

LOCATION PLAN



SWSG
SHAFFER WILSON SARVER & GRAY
1821 Michael Faraday Drive
Suite 302
Reston, VA 20190
703-471-6803
A PROFESSIONAL CORPORATION
Engineering • Architecture • Construction Management

NO.	DATE	SUBMISSION
	04-09-14	ISSUED FOR BID AND PERMIT

TITLE SHEET, GENERAL NOTES, & DRAWING INDEX

LITTLE RIVER GLEN STANDBY GENERATOR
4001 BARKER CT
FAIRFAX, VA 22032

JOB#13-068

T1

OF 1

PLUMBING GENERAL NOTES

1. THE SCOPE OF THIS WORK CONSISTS OF FURNISHING AND INSTALLING COMPLETE PLUMBING SYSTEMS. THE CONTRACTOR SHALL PROVIDE ALL SUPERVISION, LABOR, MATERIALS, EQUIPMENT, MACHINERY, AND ALL OTHER ITEMS NECESSARY TO COMPLETE THE SYSTEM. IT IS THE INTENT OF THESE PLANS AND DOCUMENTS TO PROVIDE COMPLETELY FINISHED, TESTED, AND OPERATIONAL SYSTEMS. ALL APPARATUS, APPLIANCES, MATERIALS, AND INCIDENTAL ACCESSORIES NECESSARY TO MAKE THE WORK COMPLETE AND READY FOR OPERATION, SHALL BE PROVIDED BY THE CONTRACTOR WITHOUT ADDITIONAL EXPENSE TO THE OWNER. THE TERM "PROVIDE", WHERE USED IN THESE SPECIFICATIONS AND ON THE DRAWINGS, SHALL BE DEFINED AS PURCHASE, FABRICATE, INSTALL AND CONNECT TO THE SYSTEMS AS STATED ABOVE.

2. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE, THE INTERNATIONAL CODES, NFPA, AND OTHER STATE AND LOCAL REGULATIONS. THE MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED AS REQUIRED. ALL EQUIPMENT SHALL BE NEW AND U.L. LISTED.

3. THE PREMISES WILL REMAIN OCCUPIED DURING THE COURSE OF THIS PROJECT. THE CONTRACTOR SHALL COORDINATE ALL ACTIVITIES WITH THE OCCUPANT'S AND LANDLORD'S REPRESENTATIVES. REFER TO THE INSTRUCTIONS TO BIDDERS AND GENERAL TERMS AND CONDITIONS OF THE CONTRACT FOR AVAILABLE WORKING HOURS. TAKE PRECAUTIONS TO INSURE THAT THE PREMISES ARE NOT ADVERSELY AFFECTED BY THE WORK. PROTECT ALL ADJACENT SURFACES, EQUIPMENT, FURNITURE, AND OTHER ITEMS IN THE AREA OF THE WORK. PROVIDE FIVE (5) DAYS WRITTEN NOTICE TO THE OWNER'S REPRESENTATIVE FOR ANY OWNER EQUIPMENT THAT MUST BE RELOCATED TO ACCOMMODATE THE WORK. CLEAN THE WORK AREA AFTER EACH DAILY WORK SESSION AND RESTORE THE AREA TO A CLEAN AND USEABLE CONDITION.

4. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND PAY ALL FEES NECESSARY FOR THE EXECUTION AND COMPLETION OF THIS WORK.

5. THE CONTRACTOR SHALL COOPERATE WITH OTHERS DOING WORK ON THE BUILDING AS MAY BE NECESSARY FOR THE PROPER EXECUTION OF THE WORK OF THE VARIOUS TRADES EMPLOYED IN THE CONSTRUCTION OF THE BUILDING. THE CONTRACTOR SHALL OBTAIN A COMPLETE AND CURRENT SET OF PLANS AND SPECIFICATIONS FOR THIS PROJECT. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL, STRUCTURAL, CIVIL AND ELECTRICAL DRAWINGS TO THE END THAT UNNECESSARY DELAYS MAY BE AVOIDED. NO EXTRAS WILL BE ALLOWED BECAUSE OF CONFLICTS CAUSED BY THE USE OF INCOMPLETE OR OUTDATED PLANS AND SPECIFICATIONS.

6. THE DATA GIVEN HEREIN AND ON THE DRAWINGS IS AS EXACT AS CAN BE SECURED; BUT THE ABSOLUTE ACCURACY IS NOT GUARANTEED. THE SPECIFICATIONS AND DRAWINGS ARE FOR THE ASSISTANCE AND GUIDANCE OF THE CONTRACTOR. EXACT LOCATION, DISTANCES, AND LEVELS WILL BE GOVERNED BY THE BUILDINGS. THE CONTRACTOR SHALL USE THE DATA CONTAINED WITH THIS UNDERSTANDING. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL CONSTRUCTION AND WORK OF OTHER CONTRACTOR WILL PERMIT. ALL DEVIATIONS FROM DRAWINGS REQUIRED TO MAKE THE PLUMBING WORK CONFORM TO THE BUILDING AS CONSTRUCTED AND TO THE WORK OF OTHERS SHALL BE MADE BY THE CONTRACTOR.

7. THE CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AT THE BUILDINGS AND SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF SAME. NO EXTRA COMPENSATION WILL BE ALLOWED BECAUSE OF DIFFERENCES BETWEEN WORK SHOWN ON THE DRAWINGS AND MEASUREMENTS AT THE BUILDING.

8. ALL WORK AND MATERIALS COVERED BY THE SPECIFICATIONS SHALL BE SUBJECT TO INSPECTION AND, AT ALL TIMES, BY REPRESENTATIVES OF THE ARCHITECT, ENGINEER, OR THE OWNER. IF THE ARCHITECT'S, ENGINEER'S, OR OWNER'S INSPECTOR FIND THAT ANY MATERIAL DOES NOT CONFORM TO THESE SPECIFICATIONS, THE CONTRACTOR SHALL, WITHIN 3 DAYS AFTER BEING NOTIFIED BY THE ARCHITECT, ENGINEER, OR OWNER, REMOVE THE MATERIAL FROM THE PREMISES. IF SAID MATERIAL HAS BEEN INSTALLED, THE ENTIRE EXPENSE OF REMOVING AND REPLACING SAME, INCLUDING ALL CUTTING AND PATCHING THAT MAY BE NECESSARY, SHALL BE BORNE BY THE CONTRACTOR.

9. THE CONTRACTOR SHALL REMOVE ALL MATERIALS NOT INSTALLED IN THEIR WORK WHICH WOULD INTERFERE WITH THE WORK OF OTHER CONTRACTOR, IF SO DIRECTED BY THE ARCHITECT, ENGINEER, OR THE OWNER. AT THE COMPLETION OF THE WORK, THE CONTRACTOR SHALL CLEAN UP AND REMOVE FROM THE PREMISES ALL DEBRIS AND MATERIALS NOT INSTALLED SO THAT THE PREMISES WILL BE LEFT CLEAN.

10. UPON COMPLETION OF THE WORK AND ADJUSTMENT OF ALL EQUIPMENT, ALL SYSTEMS SHALL BE TESTED IN THE PRESENCE OF THE ARCHITECT AND ENGINEER TO DEMONSTRATE THAT ALL EQUIPMENT FURNISHED AND INSTALLED UNDER THE PROVISIONS OF THESE SPECIFICATIONS FUNCTIONS IN THE MANNER REQUIRED.

11. THE CONTRACTOR SHALL LEAVE ALL SYSTEMS IN PROPER WORKING ORDER AND SHALL, AT THEIR EXPENSE, REPLACE ALL WORK, MATERIAL, AND EQUIPMENT FURNISHED BY THEM WHICH DEVELOP DEFECTS WITHIN ONE YEAR FROM THE DATE OF ACCEPTANCE. DELIVER ALL WARRANTY CERTIFICATES TO THE OWNER PRIOR TO FINAL ACCEPTANCE AND BUILDING TURN OVER.

12. THE CONTRACTOR SHALL DEMOLISH, DISASSEMBLE, AND REMOVE FROM THE PREMISES ALL EXISTING EQUIPMENT AND MATERIAL AS INDICATED THAT IS NOT BEING REUSED AND BECOMING PROPERTY OF THE OWNER. THE CONTRACTOR SHALL LEGALLY DISPOSE OF SUCH EQUIPMENT AND MATERIAL IN ACCORDANCE WITH LOCAL REGULATIONS.

13. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING AND BECOME INFORMED AS TO THE EXISTING CONDITIONS OF THE PREMISES. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH ALL EXISTING SYSTEMS AND WITH THE NEW WORK THAT IS REQUIRED. NO CONSIDERATION WILL BE GRANTED FOR ALLEGED MISUNDERSTANDING OF THE WORK THAT IS TO BE DONE. ANY DIFFICULTIES IN COMPLYING WITH THE DRAWINGS OR SPECIFICATIONS, OR QUESTIONS OF CLARIFICATION, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE BIDDING.

14. THE CONTRACTOR SHALL COORDINATE ALL GAS PIPING WORK WITH THE LOCAL GAS COMPANY. COORDINATE SIZE, LOCATION, HOUSE PRESSURE AND CAPACITY OF GAS METER AND GAS PIPING PRIOR TO FABRICATION OR INSTALLATION OF ANY GAS FIRED SYSTEMS. PROVIDE AUXILIARY GAS REGULATORS FOR 2 PSI SYSTEMS IN ACCORDANCE WITH THE GAS COMPANIES RECOMMENDATIONS. PROVIDE SHUT-OFF VALVES AT ALL GAS CONNECTIONS TO EQUIPMENT. PROVIDE 6" DIRT LEG AT ALL INDOOR GAS CONNECTIONS.

15. PROVIDE SHUT-OFF VALVES AT ALL GAS CONNECTIONS TO PLUMBING FIXTURES AND EQUIPMENT.

16. WHERE THE DRAWINGS INDICATE CONNECTIONS AND COORDINATION WITH EXISTING UTILITIES, ABOVE AND BELOW THE FLOOR OR GRADE, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXACT LOCATION, TYPE, SIZE, INVERTS, CAPACITY, AND COMPATIBILITY OF EXISTING UTILITIES THROUGH ACTUAL FIELD MEASUREMENTS AND INVESTIGATIONS AT THE JOB SITE PRIOR TO FABRICATION OR INSTALLATION OF ANY PIPING AND EQUIPMENT. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY IF SIGNIFICANT DEVIATION FROM THE PLANS ARE DISCOVERED. THE CONTRACTOR SHALL ADHERE TO ALL APPLICABLE NOTIFICATION LAWS PRIOR TO ALL DIGGING OPERATIONS.

17. THE CONTRACTOR SHALL OBTAIN AND ADHERE TO THE LANDLORD'S "RULES AND REGULATIONS FOR CONSTRUCTION". THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO ALL LANDLORD REQUIREMENTS INCLUDING, BUT NOT LIMITED TO, ALLOWABLE WORKING HOURS, PARKING, CORE DRILLING, NOISE, SECURITY, FREIGHT ELEVATOR USAGE, FLOOR LOADING, DUST CONTROL, TRASH REMOVAL, STAGING AREAS, STORAGE OF MATERIALS, CLEANUP, TOILET AVAILABILITY, ALL TEMPORARY UTILITIES, AND ALL UTILITY SERVICE INTERRUPTION. THE CONTRACTOR SHALL COORDINATE ALL ACTIVITIES WITH THE LANDLORD'S DESIGNATED REPRESENTATIVE.

18. DEVELOP AND SUBMIT COORDINATION DRAWINGS FOR ALL PLUMBING SYSTEMS PRIOR TO FABRICATION OR INSTALLATION OF ANY MATERIAL AND EQUIPMENT. REFER TO THE PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.

19. REFER TO THE ELECTRICAL DRAWINGS FOR THE VOLTAGE AND PHASE REQUIREMENTS FOR ALL ELECTRICALLY POWERED PLUMBING EQUIPMENT.

20. SHOP DRAWINGS: THE CONTRACTOR SHALL PROVIDE SIX SETS OF SHOP DRAWINGS AND PRODUCT LITERATURE FOR THE FOLLOWING PLUMBING EQUIPMENT AND SYSTEMS:

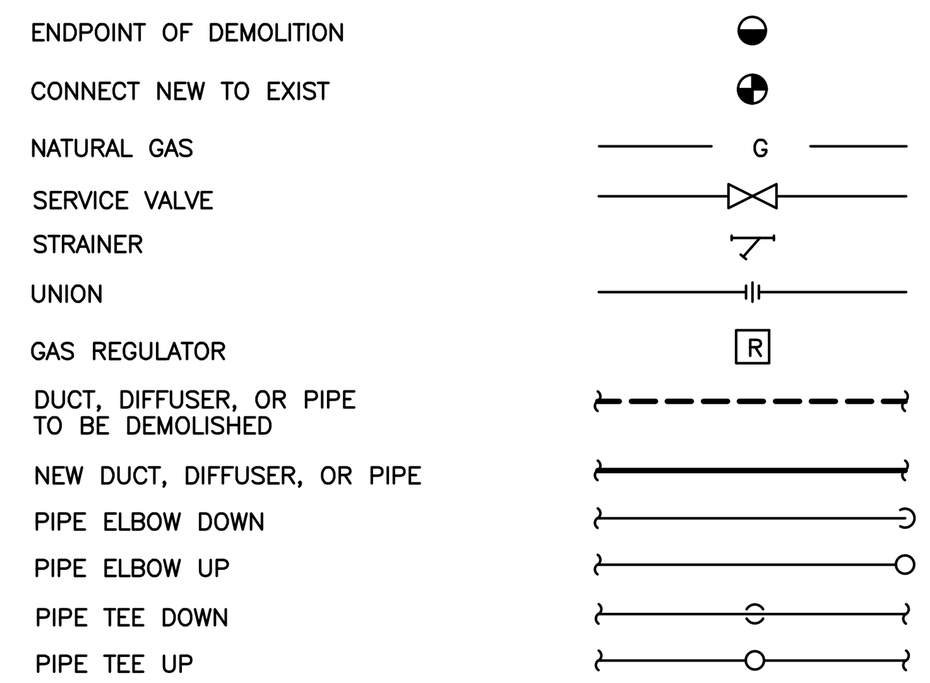
GAS PIPING SYSTEMS
VALVES

21. OPERATION AND MAINTENANCE MANUALS: THE CONTRACTOR SHALL PROVIDE OPERATION AND MAINTENANCE (O/M) MANUALS FOR ALL PLUMBING EQUIPMENT LISTED BELOW. ALL O/M MANUALS SHALL BE BOUND IN A THREE-RING BINDER. THE CONTRACTOR SHALL PREPARE TWO COMPLETE SETS OF O/M MANUALS AND DELIVER TO THE OWNER'S REPRESENTATIVE PRIOR TO FINAL ACCEPTANCE OF THE WORK.

GAS PIPING SYSTEMS
VALVES

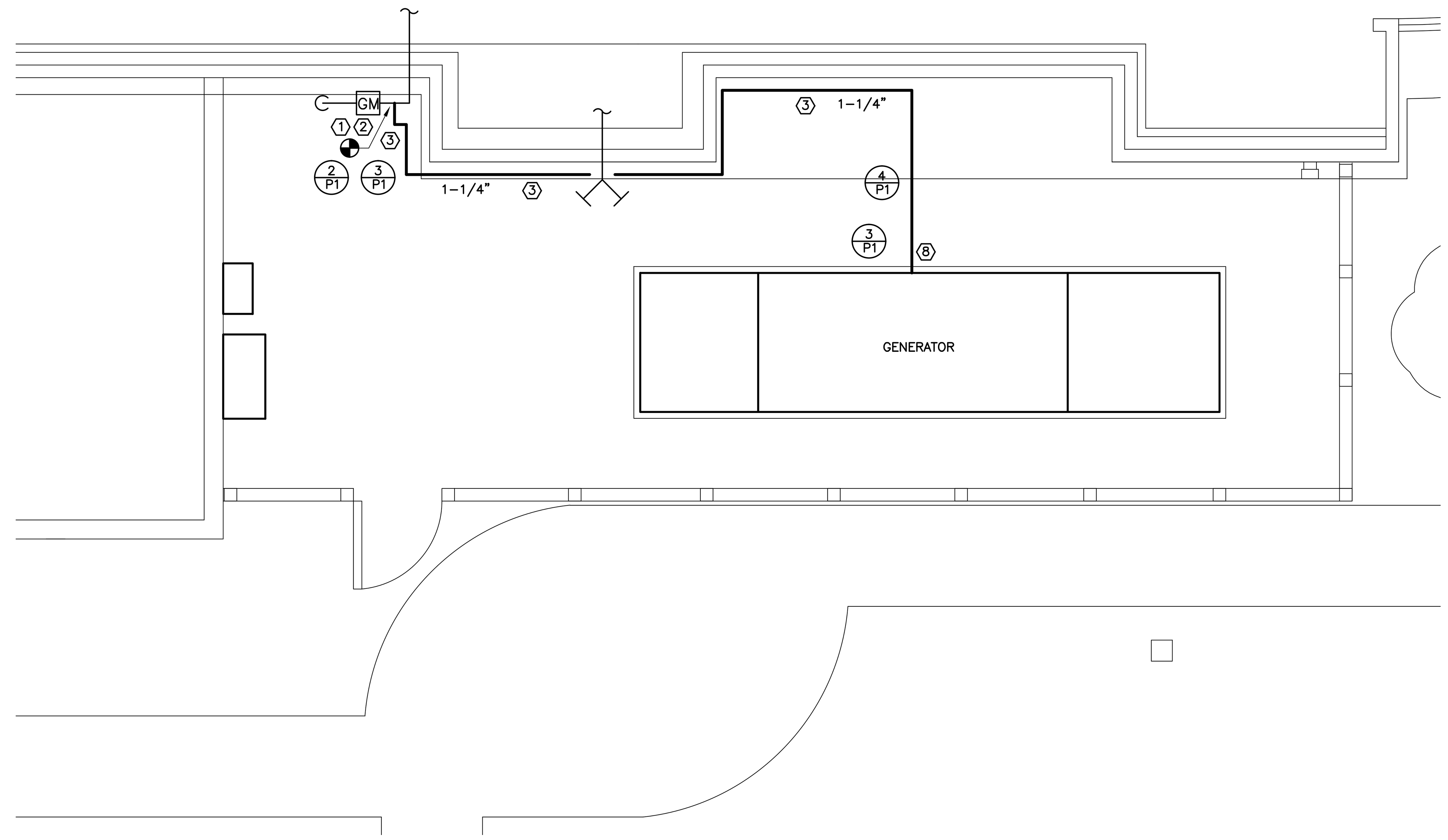
22. AS-BUILT DRAWINGS: DURING PROGRESS OF THE WORK, MAINTAIN AN ACCURATE RECORD OF THE INSTALLATION OF THE SYSTEM, LOCATING ALL PIPING AND EQUIPMENT PRECISELY BY DIMENSION. UPON COMPLETION OF THE INSTALLATION, TRANSFER ALL RECORD DATA TO BLUE-LINE PRINTS OF THE ORIGINAL DRAWINGS.

LEGEND

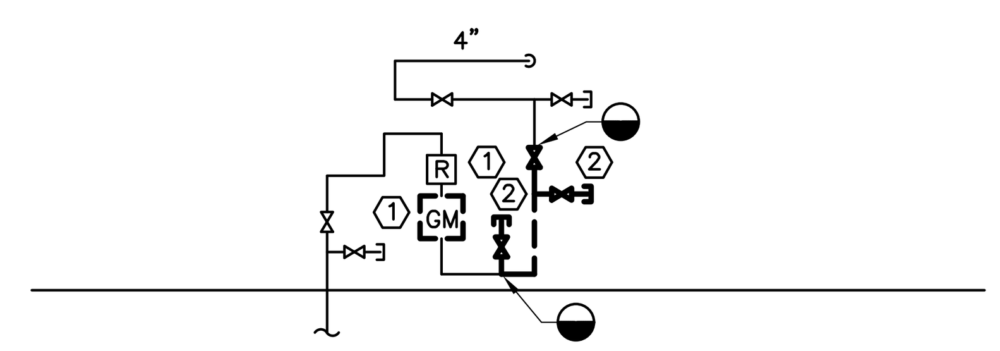


ABBREVIATIONS

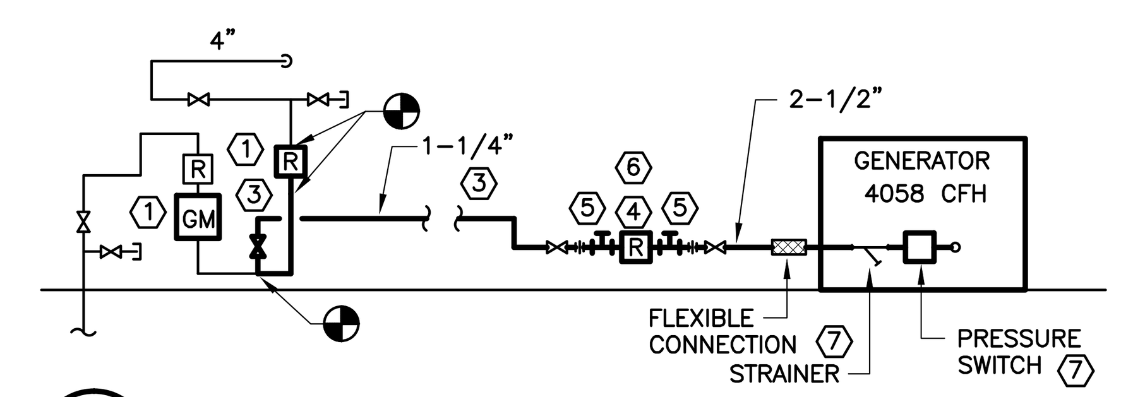
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
EXIST	EXISTING
G	NATURAL GAS PIPING
GM	GAS METER
GWH	GAS WATER HEATER
H20	WATER
HP	HORSEPOWER
IAW	IN ACCORDANCE WITH
MBH	1,000 BTU/HR
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NPS	NOMINAL PIPE SIZE
PD	PRESSURE DROP
RTU	ROOF TOP UNIT
TON	12,000 BTU/HR
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE



1 P1 PROPOSED GAS PIPING PLAN
SCALE: 1/4"=1'-0"



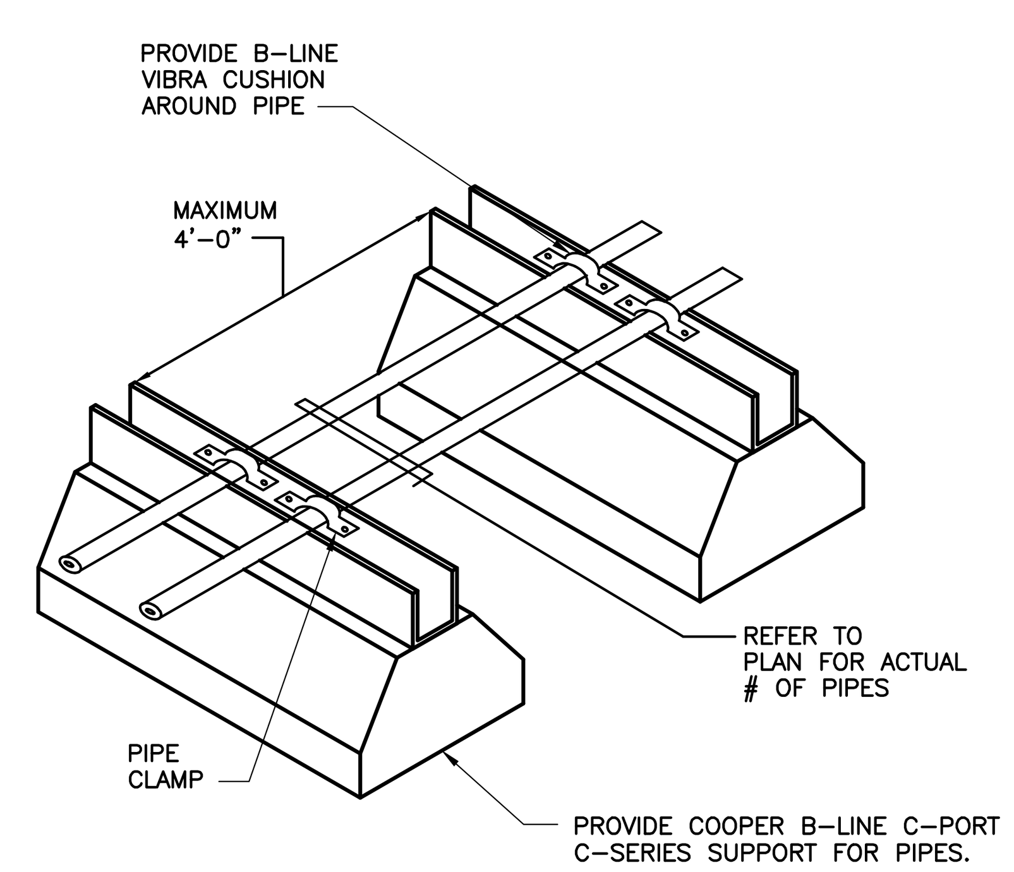
2 P1 DEMOLITION GAS PIPING RISER
SCHEMATIC



3 P1 PROPOSED GAS PIPING RISER
SCHEMATIC

PROPOSED 2 PSI SERVICE TO GENERATOR
- TOTAL DEVELOPED LENGTH = 60'
- SPECIFIC GRAVITY - .6
- HEATING VALUE = 1000 BTU/CF
- 2 PSI PRESSURE SYSTEM
- NOMINAL PIPE SIZES SHOWN FOR SCHEDULE 40 BLACK STEEL
- PRESSURE DROP OF 1 PSI (USE IFGC TABLE 402.4(3))

LOW PRESSURE SERVICE FROM REGULATOR TO GENERATOR (2 PSI OR LESS)
- TOTAL DEVELOPED LENGTH = 10'
- SPECIFIC GRAVITY - .6
- HEATING VALUE = 1000 BTU/CF
- NOMINAL PIPE SIZES SHOWN FOR SCHEDULE 40 BLACK STEEL
- PRESSURE DROP OF .3" OR LESS (USE IFGC TABLE 402.4(1))



4 P1 DETAIL - PIPING SUPPORT
SCHEMATIC

NUMBERED NOTES: SHEET P1

1. CONTRACTOR SHALL ARRANGE FOR WASHINGTON GAS TO REPLACE THE GAS METER AND CONVERT EXISTING LOW PRESSURE SERVICE TO A 2 PSI SERVICE TO PROVIDE DUAL PRESSURES DOWNSTREAM OF THE METER. CONTRACTOR SHALL RECONFIGURE THE PIPING AS REQUIRED TO PROVIDE A NEW LOW PRESSURE REGULATOR FOR THE EXISTING LOW PRESSURE SERVICE. THE GENERATOR SHALL BE PROVIDED WITH 2 PSI.
2. REMOVE PORTION OF GAS PIPING, VALVES, ETC. AS SHOWN TO ACCOMMODATE NEW REGULATOR AND 2 PSI SERVICE.
3. PROVIDE 2 PSI GAS PIPING FROM THE TAP TO THE NEW GENERATOR. PIPING SHOWN OFFSET FOR CLARITY. INSTALL PIPING ON EXTERIOR WALL.
4. PROVIDE 2 PSI TO LOW PRESSURE (7"-11" WC) REGULATOR AT GENERATOR.
5. PROVIDE TEE FITTING WITH ONE OPENING CAPPED OR PLUGGED FOR CONNECTION OF PRESSURE MEASURING INSTRUMENT.
6. INSTALL REGULATOR AND TEE FITTINGS OUTSIDE THE GENERATOR ENCLOSURE.
7. INSTALL STRAINER AND PRESSURE SWITCH PROVIDED BY GENERATOR VENDOR. CONNECT PRESSURE SWITCH TO GENERATOR CONTROL SYSTEM.
8. PROVIDE PENETRATION THROUGH SIDE OF GENERATOR ENCLOSURE FOR GAS PIPING. COORDINATE EXACT LOCATION IN THE FIELD. PROVIDE GROMMET AROUND PIPING AT THE PENETRATION.

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1821 Michael Faraday Drive
Suite 302
Reston, VA 20190
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PROPOSED GAS PIPING PLAN AND RISERS

LITTLE RIVER GLEN STANDBY GENERATOR
4001 BARKER CT
FAIRFAX, VA 22032

JOB#13-068

P1

OF 1

PANEL: 'MDP' (E)

VOLTAGE: 208/120V 3 PHASE, 4 WIRE — BUS: 1200A — MAIN: 1200A MCB
LOCATION: ELECTRICAL ROOM BASEMENT — SECTION: 1 OF 1
AIC: 42,000 — MOUNTING: SURFACE — SOURCE: NORMAL

LOAD TYPE	LOAD DESCRIPTION	FDR SIZE	LOAD (KVA)	BKR (A)	CKT NO	LOAD (KVA) PHASE A	PHASE B	PHASE C	CKT NO	BKR (A)	LOAD (KVA)	FDR SIZE	LOAD DESCRIPTION	LOAD TYPE
	KILN	E	4.3	60	1	13.1			2	125	8.8	E	PANEL 'S'	N
			4.3	/	3		12.8		4	/	8.5			N
			4.3	3P	5			12.2	6	3P	7.9			N
N	PANEL 'L2'	E	10.7	150	7	24.7			8	175	14.0	E	PANEL 'L1'	N
N			10.1	/	9		22.1		10	/	12.0			N
N			9.2	3P	11			21.2	12	3P	12.0			N
N	PANEL 'P1'	E	15.9	200	13	39.3			14	225	23.4	E	PANEL 'K'	N
N			16.8	/	15		37.5		16	/	20.7			N
N			16.9	3P	17			41.6	18	3P	24.7			N
N	PANEL 'P2'	E	30.5	400	19	30.5			20	125			SPARE	
N			29.9	/	21		29.9		22	/				
N			28.3	3P	23			28.3	24	3P				
N	PANEL 'E' (NOTE 1)	1	3.3	60	25	3.3			26				SPACE	
N			2.0	/	27		2.0		28					
N			2.0	3P	29			2.0	30					
	SPACE				31	0.0			32				SPACE	
					33		0.0		34					
					35			0.0	36					
	SPACE				37	0.0			38				SPACE	
					39		0.0		40					
					41			0.0	42					
						106.6	100.0	101.0						

Notes:
1 PROVIDE 60A, 3 POLE BREAKER IN EXISTING SPACE TO CONNECT THE CIRCUIT AS SHOWM

TOTAL CONNECTED: 307.6 (KVA) 855 (AMP)

LOAD TYPE CODE LETTERS		(KVA)	(AMP)
C	CONTINUOUS LOAD *(125% OF CONTINUOUS LOAD)*	0.0	0
K6	KITCHEN DEVICES *(SIX OR MORE AT 65% OF LOAD)*	0.0	0
LM	LARGE MOTOR LOAD *(LARGEST MOTOR x125%)*	0.0	0
M	MOTOR LOAD *(100% OF LOAD)*	0.0	0
N	NON-CONTINUOUS LOAD *(100% OF LOAD)*	307.6	855
R	RECEPTACLE LOAD *(FIRST 10KVA AT 100%, REMAIN. AT 50%)*	0.0	0
	TOTAL DEMAND:	307.6	855

PANELBOARD SPECIAL FEATURES
- 200% RATED NEUTRAL
- SURGE PROTECTION DEVICE (SPD)
- OTHER

FEEDER SIZE:

1	SEE RISER DIAGRAM
2	
3	
4	
5	
X	REMOVE EXISTING CIRCUIT (CONDUIT AND WIRE)
E	EXISTING CIRCUIT TO REMAIN

PANEL: 'P2 SEC1' (E)

VOLTAGE: 208/120V 3 PHASE, 4 WIRE — BUS: 400A — MAIN: MLO
LOCATION: ELECTRICAL ROOM BASEMENT — SECTION: 1 OF 2
AIC: 14,000 — MOUNTING: SURFACE — SOURCE: NORMAL

LOAD TYPE	LOAD DESCRIPTION	FDR SIZE	LOAD (KVA)	BKR (A)	CKT NO	LOAD (KVA) PHASE A	PHASE B	PHASE C	CKT NO	BKR (A)	LOAD (KVA)	FDR SIZE	LOAD DESCRIPTION	LOAD TYPE
M	INDOOR HAF-1 (1/2HP)	E	1.2	20	1	2.4			2	20	1.2	E	INDOOR HAF-2 (1/2HP)	M
M	INDOOR HAF-3 (1/2HP)	E	1.2	20	3		2.4		4	20	1.2	E	INDOOR HAF-16 (1/2HP)	M
M	INDOOR HAF-15 (1/2HP)	E	1.2	20	5			2.4	6	20	1.2	E	INDOOR HAF-17 (1/2HP)	M
M	FANS F-4 & F-5 (1/15HP)	E	0.8	20	7	1.3			8	20	0.5	E	GAS FIRE WATER HEATER	N
M	FANS F-1 & F-2 (1/15HP)	E	0.8	20	9		1.8		10	20	1.0	E	RECIRCULATING PUMP	M
N	**GEN. BATTERY CHARGER (NOTE 1)**	1	1.0	20	11			2.0	12	20	1.0	E	ICE MACHINE	M
M	OUTDOOR HAF-3 (14.0A)	E	1.5	30	13	3.0			14	30	1.5	E	OUTDOOR HAF-3 (14.0A)	M
M			1.5	/2P	15		3.0		16	/2P	1.5			M
M	OUTDOOR HAF-16 (18.6A)	E	2.0	40	17			4.3	18	40	2.3	E	OUTDOOR HAF-1 (19.6A)	M
M			2.0	/2P	19	4.3			20	/	2.3			M
M	OUTDOOR HAF-4 (19.6A)	E	2.3	40	21		4.6		22	3P	2.3			M
M			2.3	/	23			4.8	24	40	2.5	E	OUTDOOR HAF-2 (20.9A)	LM
M			2.3	3P	25	4.8			26	/	2.5			LM
N	**GEN. JACK WATER HEATER (NOTE 2)**	1	1.6	30	27		4.1		28	3P	2.5			LM
N			1.6	/2P	29			2.6	30	20	1.0	1	**GEN. CONTROLS (NOTE 2)**	N
						15.8	15.9	16.1						

Notes:
1 USE EXISTING 20A, 1 POLE BREAKER
2 PROVIDE BREAKER AS SHOWN IN EXISTING SPACE

TOTAL CONNECTED: 47.8 (KVA) 133 (AMP)

LOAD TYPE CODE LETTERS		(KVA)	(AMP)
C	CONTINUOUS LOAD *(125% OF CONTINUOUS LOAD)*	0.0	0
K6	KITCHEN DEVICES *(SIX OR MORE AT 65% OF LOAD)*	0.0	0
LM	LARGE MOTOR LOAD *(LARGEST MOTOR x125%)*	9.4	26
M	MOTOR LOAD *(100% OF LOAD)*	34.6	96
N	NON-CONTINUOUS LOAD *(100% OF LOAD)*	5.7	16
R	RECEPTACLE LOAD *(FIRST 10KVA AT 100%, REMAIN. AT 50%)*	0.0	0
	TOTAL DEMAND:	49.7	138

PANELBOARD SPECIAL FEATURES
- 200% RATED NEUTRAL
- SURGE PROTECTION DEVICE (SPD)
- OTHER

FEEDER SIZE:

1	SEE RISER DIAGRAM
2	
3	
4	
5	
X	REMOVE EXISTING CIRCUIT (CONDUIT AND WIRE)
E	EXISTING CIRCUIT TO REMAIN

PANEL: 'E' (E)

VOLTAGE: 208/120V 3 PHASE, 4 WIRE — BUS: 60A — MAIN: MLO
LOCATION: EELCTRICAL ROOM — SECTION: 1 OF 1
AIC: 10,000 — MOUNTING: SURFACE — SOURCE: NORMAL

LOAD TYPE	LOAD DESCRIPTION	FDR SIZE	LOAD (KVA)	BKR (A)	CKT NO	LOAD (KVA) PHASE A	PHASE B	PHASE C	CKT NO	BKR (A)	LOAD (KVA)	FDR SIZE	LOAD DESCRIPTION	LOAD TYPE
C	EMERGENCY & NIGHT LIGHT	E	0.7	20	1	1.5			2	20	0.8	E	EMERGENCY & NIGHT LIGHT	C
C	EMERGENCY & NIGHT LIGHT	E	1.0	20	3		2.0		4	20	1.0	E	EMERGENCY & NIGHT LIGHT	C
N	FIRE PROTECTION SYSTEM	E	1.0	20	5			2.0	6	20	1.0	E	SECURITY SYSTEM	N
M	MOTORIZED SLIDING DOOR	E	0.8	20	7	1.8			8	20	1.0	1	**FACP (NOTE 1)**	N
	SPARE			20	9		0.0		10	20			SPARE	
	SPARE			20	11			0.0	12	20			SPARE	
LM	JOCKEY PUMP	E		20	13	0.0			14	20			SPARE	
LM				/	15		0.0		16	/				
LM				3P	17			0.0	18	3P				
						3.3	2.0	2.0						

Notes:
1 USE EXISTING SPARE 20A, 1 POLE BREAKER TO CONNECT THE CIRCUIT AS SHOWN

TOTAL CONNECTED: 7.3 (KVA) 20 (AMP)

LOAD TYPE CODE LETTERS		(KVA)	(AMP)
C	CONTINUOUS LOAD *(125% OF CONTINUOUS LOAD)*	4.4	12
K6	KITCHEN DEVICES *(SIX OR MORE AT 65% OF LOAD)*	0.0	0
LM	LARGE MOTOR LOAD *(LARGEST MOTOR x125%)*	0.0	0
M	MOTOR LOAD *(100% OF LOAD)*	0.8	2
N	NON-CONTINUOUS LOAD *(100% OF LOAD)*	3.0	8
R	RECEPTACLE LOAD *(FIRST 10KVA AT 100%, REMAIN. AT 50%)*	0.0	0
	TOTAL DEMAND:	8.2	23

PANELBOARD SPECIAL FEATURES
- 200% RATED NEUTRAL
- SURGE PROTECTION DEVICE (SPD)
- OTHER

FEEDER SIZE:

1	SEE RISER DIAGRAM
2	
3	
4	
5	
X	REMOVE EXISTING CIRCUIT (CONDUIT AND WIRE)
E	EXISTING CIRCUIT TO REMAIN

PANEL: 'P2 SEC2' (E)

VOLTAGE: 208/120V 3 PHASE, 4 WIRE — BUS: 400A — MAIN: MLO
LOCATION: ELECTRICAL ROOM BASEMENT — SECTION: 2 OF 2
AIC: 14,000 — MOUNTING: SURFACE — SOURCE: NORMAL

LOAD TYPE	LOAD DESCRIPTION	FDR SIZE	LOAD (KVA)	BKR (A)	CKT NO	LOAD (KVA) PHASE A	PHASE B	PHASE C	CKT NO	BKR (A)	LOAD (KVA)	FDR SIZE	LOAD DESCRIPTION	LOAD TYPE
M	OUTDOOR HAF-5 (12A)	E	1.5	30	1	3.5			2	40	2.0	E	OUTDOOR HAF-13 (17.1A)	M
M			1.5	/	3		3.5		4	/	2.0			M
M			1.5	3P	5			3.5	6	3P	2.0			M
M	OUTDOOR HAF-14 (20.9A)	E	2.5	40	7	5.0			8	40	2.5	E	OUTDOOR HAF-15 (20.9A)	M
M			2.5	/	9		5.0		10	/	2.5			M
M			2.5	3P	11			5.0	12	3P	2.5			M
M	MUA-1 (3HP)	E	1.2	20	13	1.8			14	20	0.6	E	SUMP PUMP	M
M			1.2	/	15		1.8		16	/	0.6			M
M			1.2	3P	17			1.8	18	3P	0.6			M
N	BASEBOARD HEATER	E	2.5	40	19	2.5			20				SPACE	
N			2.5	/2P	21		2.5		22				SPACE	
M	FOUNTAIN PUMP (3HP)	E	1.2	30	23			1.9	24	20	0.7	E	FOUNTAIN FILTER PUMP	M
M			1.2	/	25	1.9			26	/2P	0.7			M
M			1.2	3P	27		1.2		28	20			SPARE	
					29			0.0	30	20			SPARE	
						14.7	14.0	12.2						

Notes:
1

TOTAL CONNECTED: 40.9 (KVA) 114 (AMP)

LOAD TYPE CODE LETTERS		(KVA)	(AMP)
C	CONTINUOUS LOAD *(125% OF CONTINUOUS LOAD)*	0.0	0
K6	KITCHEN DEVICES *(SIX OR MORE AT 65% OF LOAD)*	0.0	0
LM	LARGE MOTOR LOAD *(LARGEST MOTOR x125%)*	0.0	0
M	MOTOR LOAD *(100% OF LOAD)*	35.9	100
N	NON-CONTINUOUS LOAD *(100% OF LOAD)*	5.0	14
R	RECEPTACLE LOAD *(FIRST 10KVA AT 100%, REMAIN. AT 50%)*	0.0	0
	TOTAL DEMAND:	40.9	114

PANELBOARD SPECIAL FEATURES
- 200% RATED NEUTRAL
- SURGE PROTECTION DEVICE (SPD)
- OTHER

FEEDER SIZE:

1	
2	
3	
4	
5	
X	REMOVE EXISTING CIRCUIT (CONDUIT AND WIRE)
E	EXISTING CIRCUIT TO REMAIN

LOAD ANALYSIS

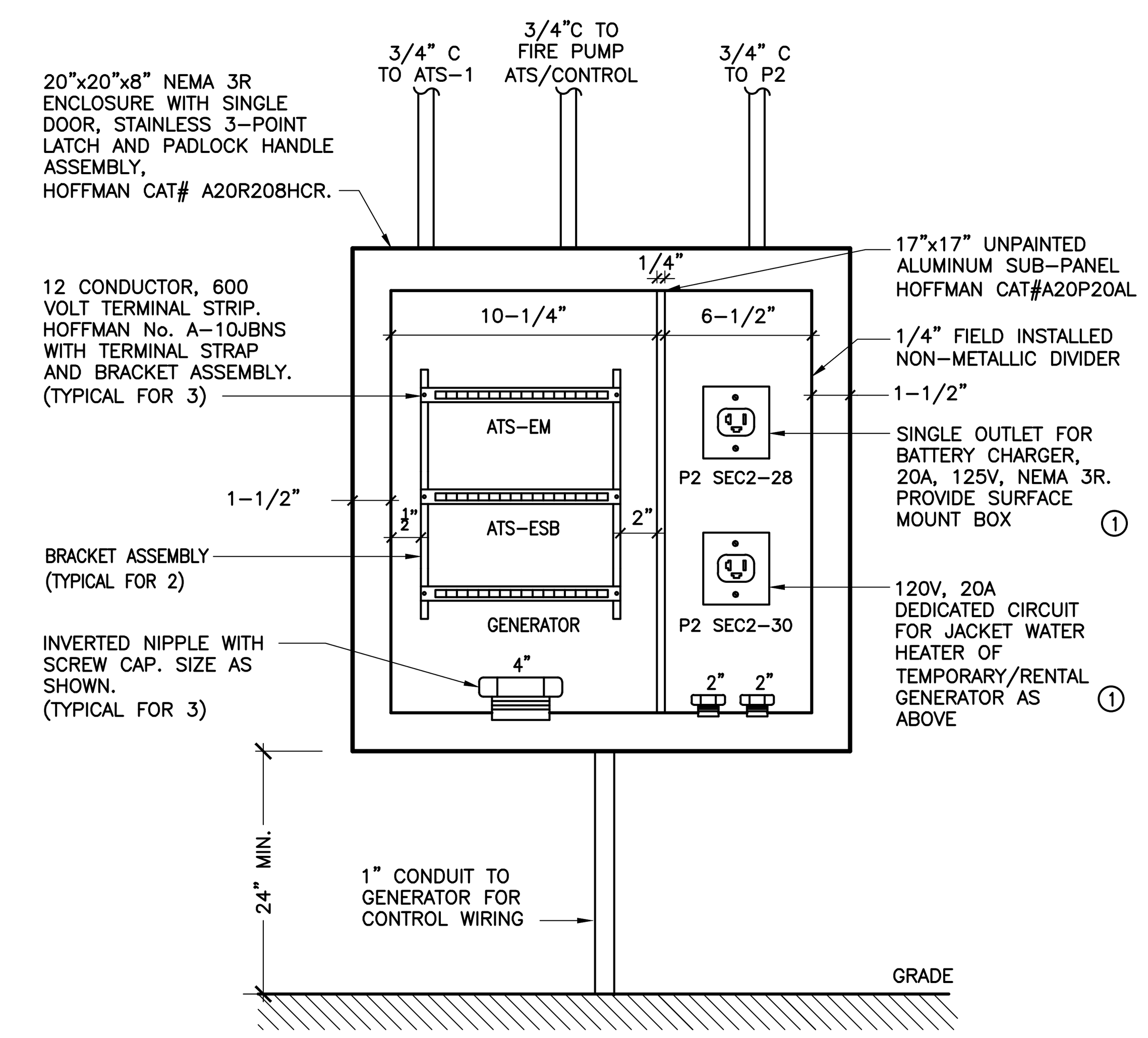
MONTH	YEAR	USAGE KWH	DEMAND KW
JUNE	2012	22720	60.00
JULY	2012	28480	67.20
AUGUST	2012	22240	52.00
SEPTEMBER	2012	21600	51.20
OCTOBER	2012	17840	44.80
NOVEMBER	2012	14320	43.20
DECEMBER	2012	15680	32.80
JANUARY	2013	16640	33.60
MARCH	2013	16640	33.60
APRIL	2013	16480	52.00
MAY	2013	15840	46.40
JUNE	2013	22240	59.20

PEAK LOAD DEMAND = 67.20 KW, 187 A @208V/3PH

FIRE PUMP (30HP) = 154 A

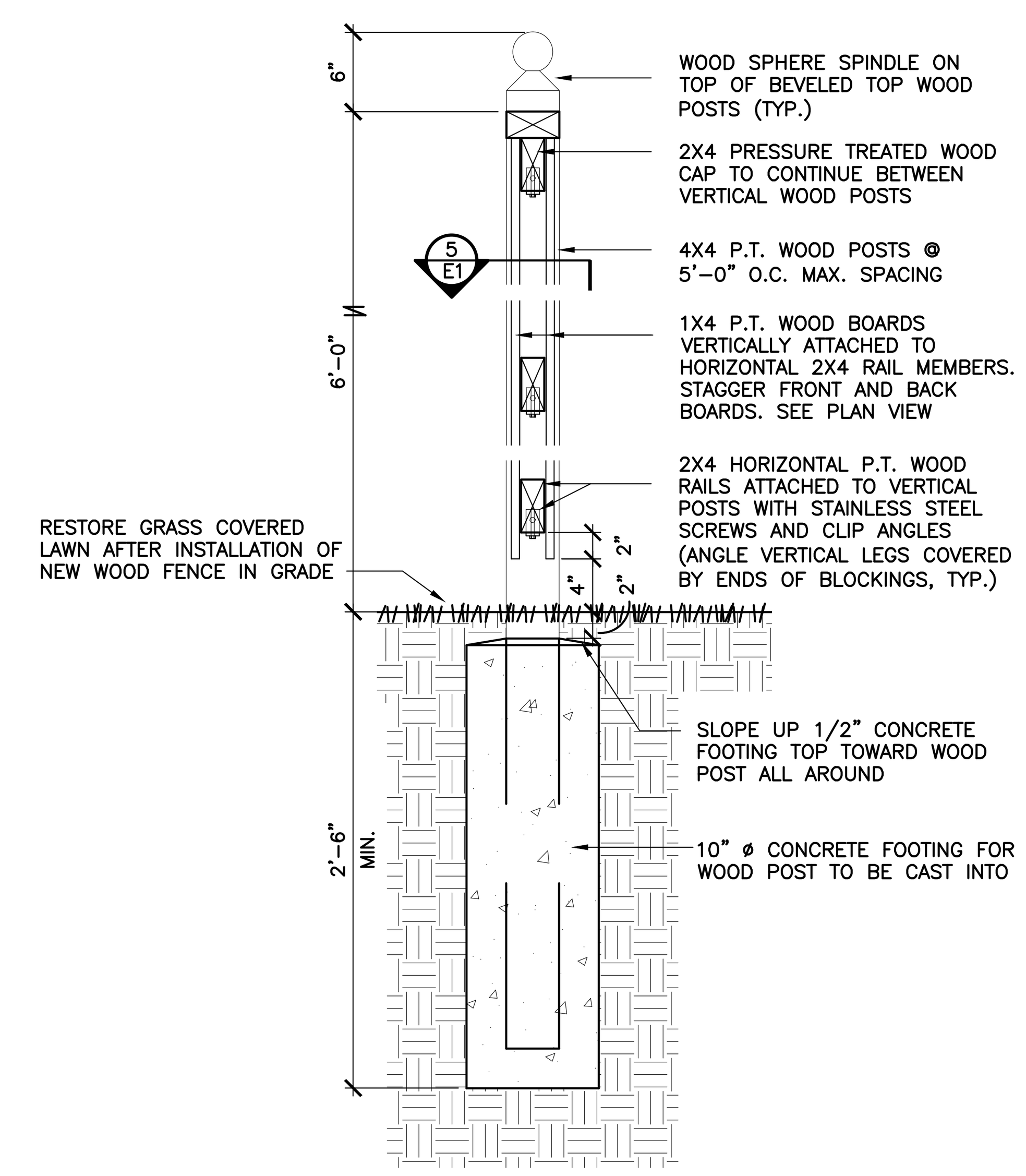
GENERATOR BATTERY CHARGER JACKET WATER HEATER & CONTROLS = 32 A

TOTAL DEMAND = 373 A

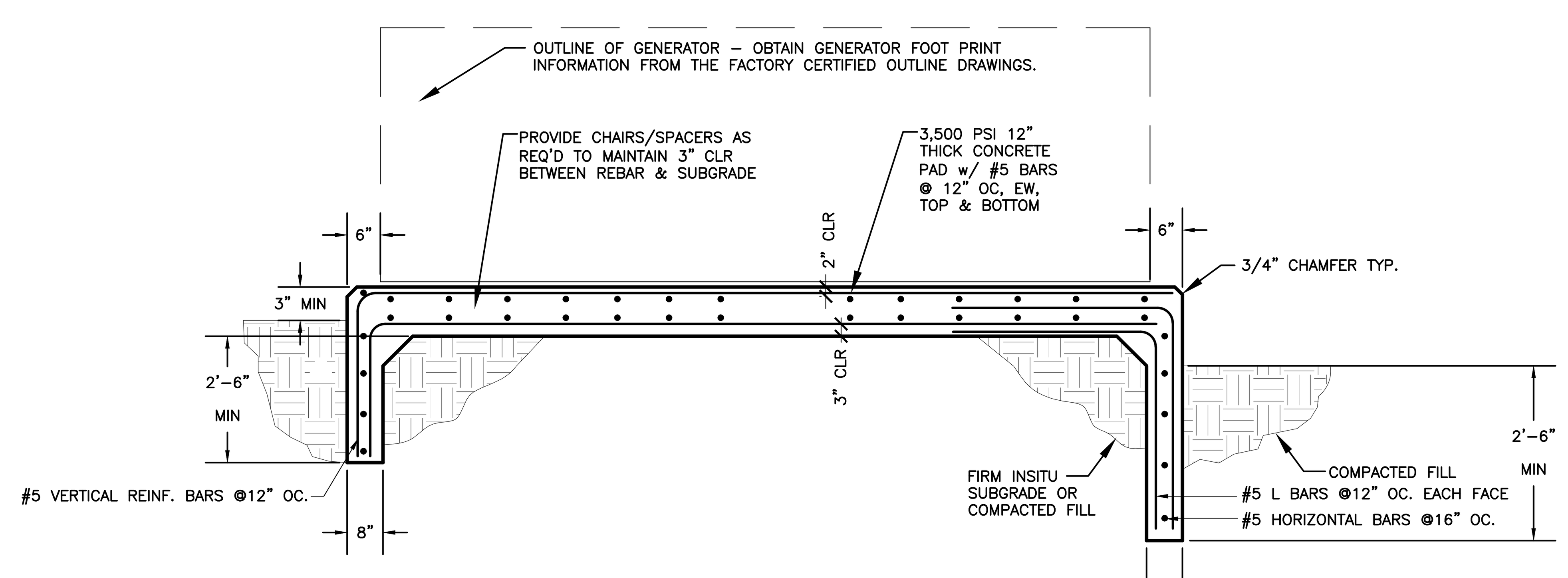


① TEMPORARY GENERATOR BATTERY CHARGER AND JACKET HEATER RECEPTACLES. PROVIDE SURFACE MOUNT BOX AND RUN POWER WIRING IN ENCLOSUIRE IN LMFC. SEE PANEL SCHEDULES.

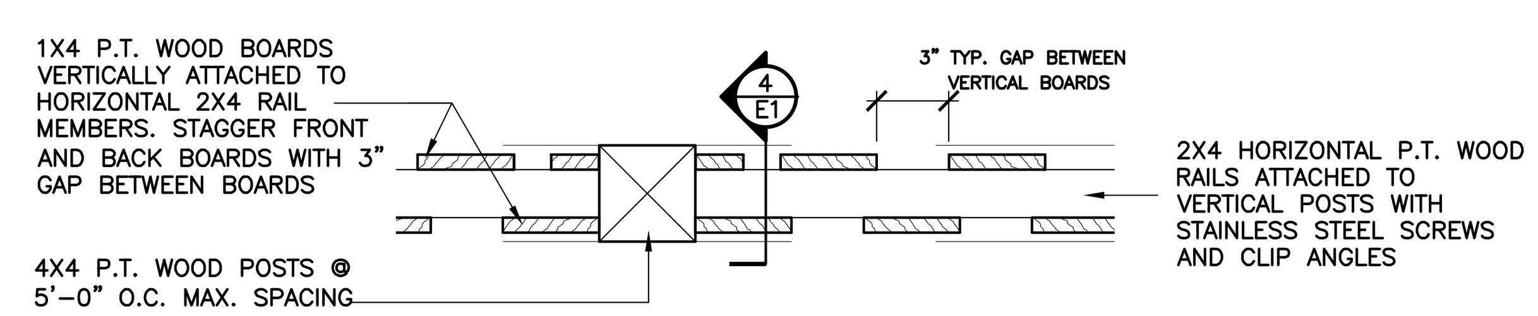
3/E1 GENERATOR CONNECTION BOX
SCALE: NO SCALE



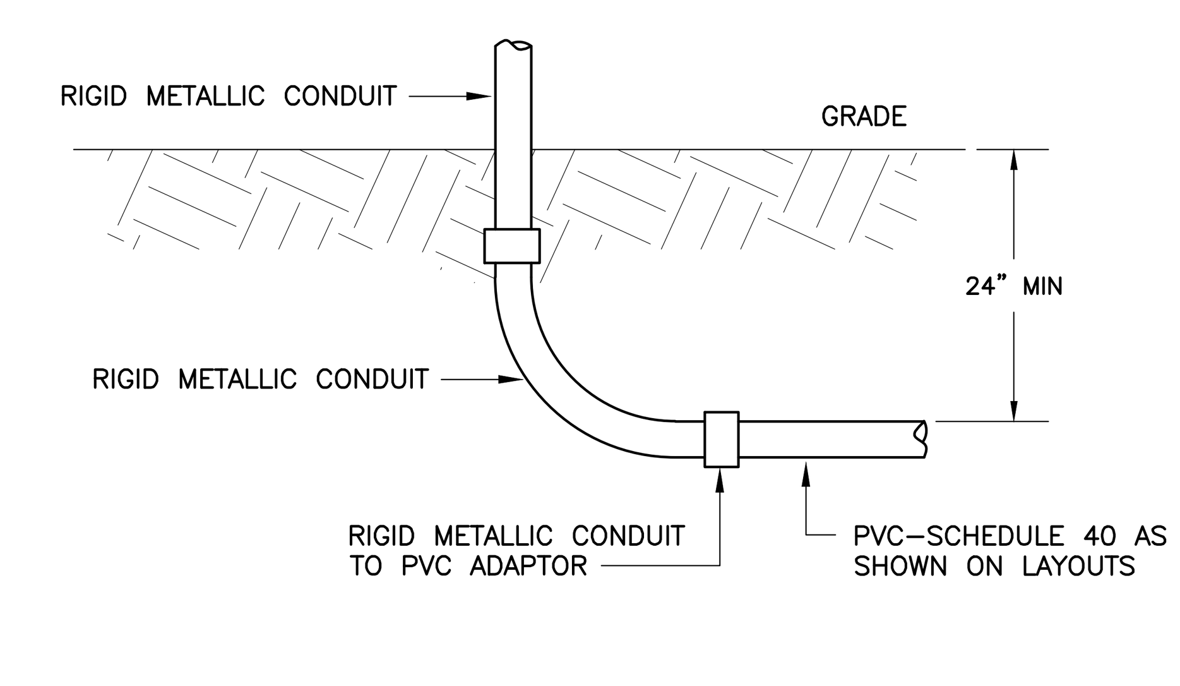
4/E1 GENERATOR ENCLOSURE WOOD FENCE SECTION
SCALE: 1"=1'-0"



1/E1 GENERATOR PAD SECTION
SCALE: NOT TO SCALE



5/E1 GENERATOR ENCLOSURE WOOD FENCE PARTIAL PLAN VIEW
SCALE: 1 1/2"=1'-0"



2/E1 UNDERGROUND CONDUIT STUB-UP
NOT TO SCALE

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SCHEDULES AND DETAILS

LITTLE RIVER GLEN STANDBY GENERATOR
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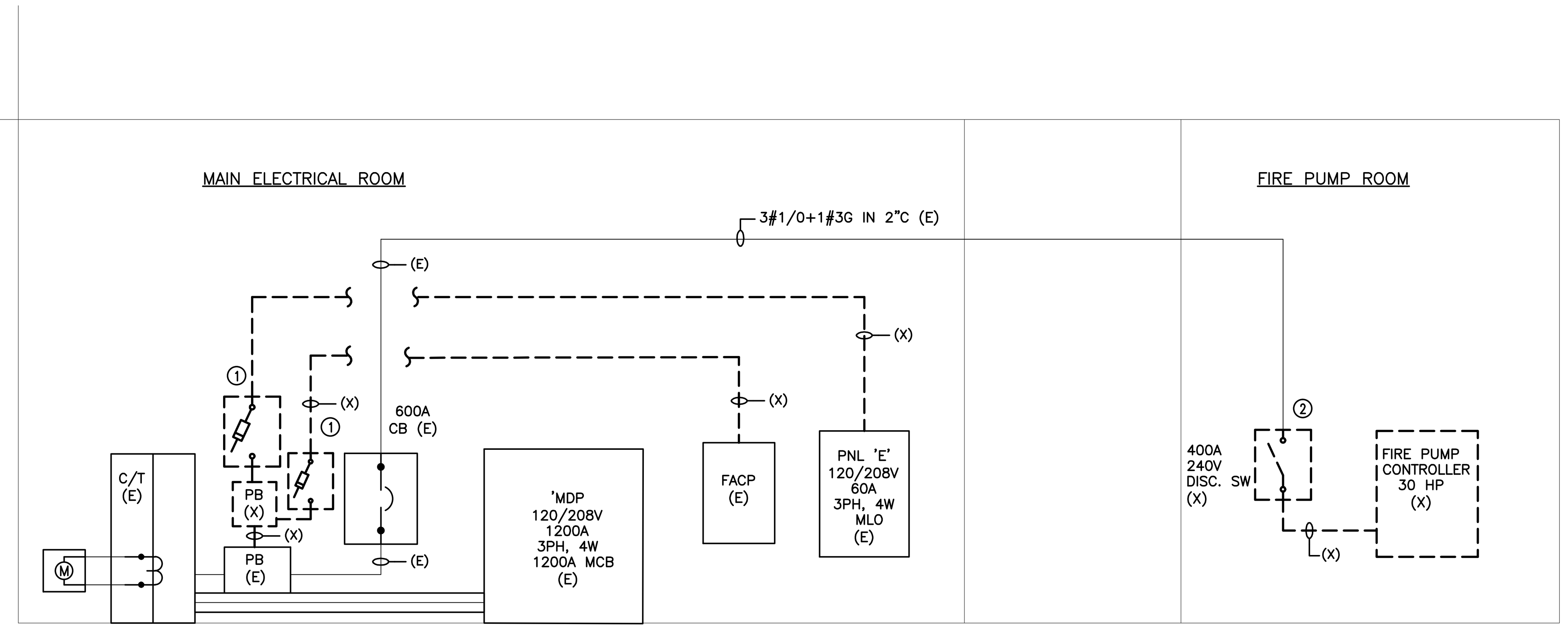
FAIRFAX, VA 22032

JOB#13-068

E1



1/E2 RISER DIAGRAM — DEMOLITION
NOT TO SCALE

RISER KEYED NOTES

1. REMOVE DISCONNECT SWITCH, CONDUIT AND WIRE AS SHOWN.
2. REMOVE DISCONNECT SWITCH AND EXTEND EXISTING CIRCUIT TO NEW COMBINATION ATS, DISCONNECT AND CONTROLLER AS SHOWN ON PROPOSED RISER DIAGRAM,. REFER TO FLOOR PLAN FOR LOCATION.
3. INTERCEPT EXISTING SERVICE FEEDERS AND PROVIDE 800A 208V, 3 POLE ENCLOSED BREAKER AND CONNECT AS SHOWN. REFER TO DETAIL 3/E2.
4. PROVIDE 60A, 3 POLE BREAKER IN EXISTING SPACE TO CONNECT EXISTING PANEL 'E' AS SHOWN
5. PROVIDE 800A, 3 POLE ATS AS SHOWN. REFER TO FLOOR PLAN FOR LOCATION.
6. PROVIDE COMBINATION ATS, DISCONNECT SWITCH AND CONTROLLER FOR 30HP, 208V, 3 PHASE FIRE PUMP MOTOR. REFER TO FLOOR PLAN FOR LOCATION.
7. PROVIDE 20" X 20" X 8" NEMA 3R GENERATOR CONNECTION BOX FOR CONNECTION OF GENERATOR CONTROL CIRCUITS AND RECEPTACLES. PROVIDE A SINGLE DOOR WITH STAINLESS STEEL 3 POINT LATCH AND PADLOCK HANDLE ASSEMBLY. PROVIDE A NUMBERED, SCREW DOWN WIRING STRIP IN THE ENCLOSURE FOR PARALLEL CONNECTION OF ROLL-UP AND PERMANENT GENERATOR CONTROL WIRING. RUN 8#12 THWN SEPARATE COLOR CODED CONTROL WIRES FOR EACH ATS FROM GENERATOR CONNECTION BOX TO ATS-1 AND ATS-2 IN COMMON CONDUIT. SEE DETAIL 3/E1.
8. PROVIDE 800A, 240V, 3 POLE, DOUBLE-THROW, CENTER OFF SWITCH IN NEMA 3R ENCLOSURE WITH INTERLOCK KIT FOR CONNECTION OF FUTURE TEMPORARY GENERATOR.
9. PROVIDE 200A, 240V, 3 POLE, DOUBLE-THROW, CENTER OFF SWITCH IN NEMA 3R ENCLOSURE WITH INTERLOCK KIT FOR CONNECTION OF FUTURE TEMPORARY GENERATOR. PROVIDE 2" INVERTER NIPPLE WITH SCREW CAP.
10. PROVIDE 2-4 INVERTED NIPPLE WITH SCREW CAP AT THE BOTTOM OF THE SWITCH FOR FUTURE CONNECTION OF TEMPORARY GENERATOR.
11. GENERATOR REMOTE MANUAL STOP STATION.
12. TO RGAP PANEL. ROUTE 1"C TO GENERATOR WITH 7#12 AND TWO SHIELDED, TWISTED PAIRS (24 AWG) 'BELDEN' #9413 OR AS RECOMMENDED BY THE GENERATOR MANUFACTURER. VERIFY PRIOR TO ROUGH-IN. MOUNT RGAP IN RECEPTION AREA APPROXIMATELY 150 FEET FROM GENERATOR.
13. PROVIDE CUMMINS GASEOUS FUEL GENERATOR SET GTA19G CC ENGINE SERIES, 300KW/375KVA, 1041A, 208V, 3 PHASE OR SIMILAR.

DRAWING GENERAL NOTES

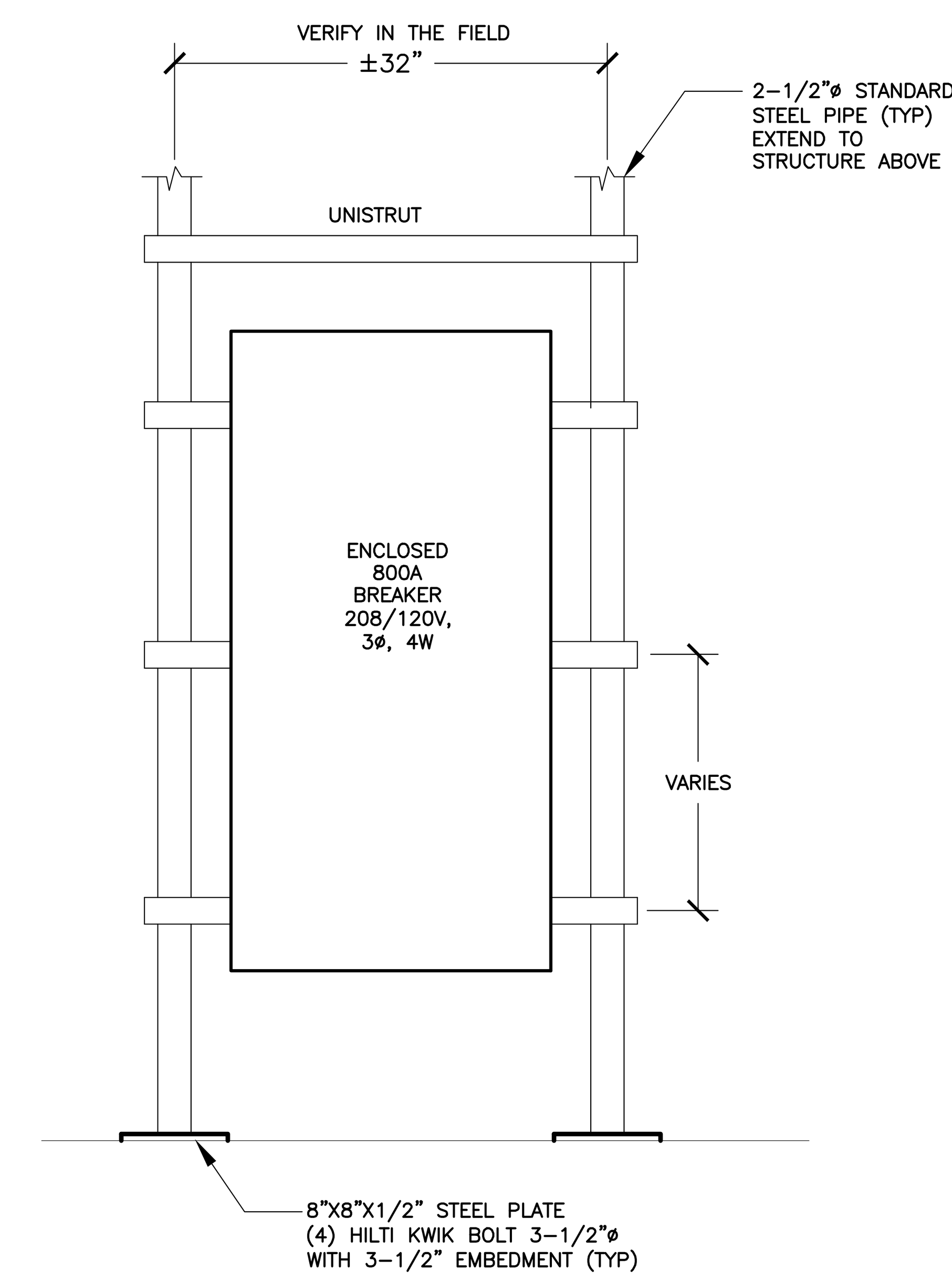
A. FOR SYMBOLS, ELECTRICAL NOTES, ABBREVIATIONS, AND SPECIFICATIONS REFER TO DRAWINGS T1.

B. DEVICES SHOWN WITH AN 'E' ARE EXISTING TO REMAIN. MAINTAIN CONTINUITY OF EXISTING CIRCUITS TO REMAIN. PROTECT ALL EXISTING DEVICES TO REMAIN FROM DAMAGE DURING CONSTRUCTION.

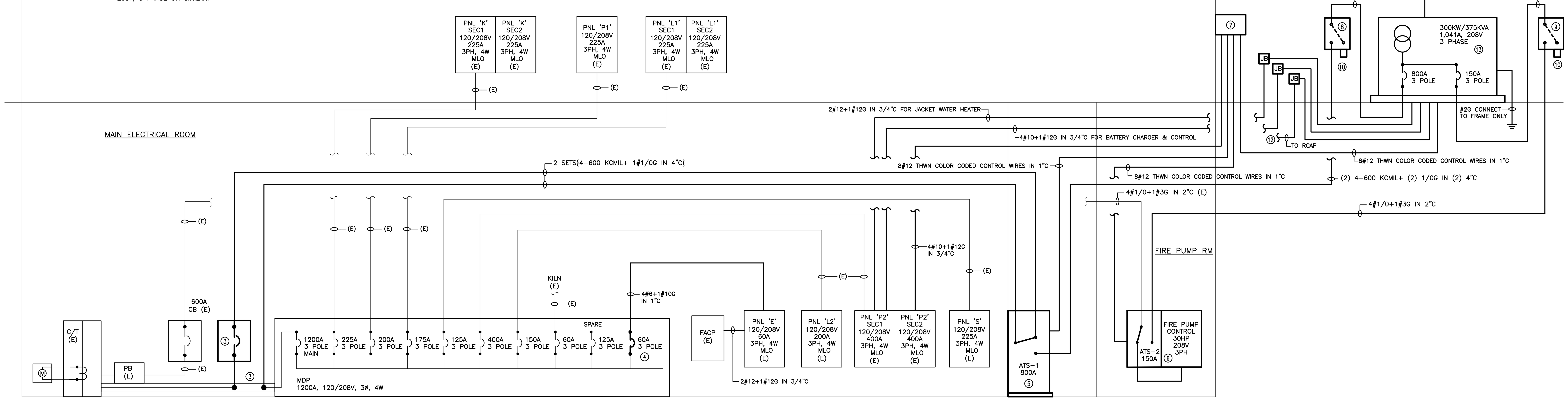
C. CONTRACTOR MAY REUSE EXISTING, IN PLACE CONDUIT AT HIS OPTION. ALL REUSED CONDUIT MUST MEET THE SPECIFICATION FOR TYPE, USE AND INSTALLATION AND BE WARRANTED AS NEW BY THE CONTRACTOR. TYPICAL FOR ALL REFERENCES MADE TO REUSING EXISTING CONDUIT THROUGHOUT THE PROJECT.

D. ALL OUTSIDE ELECTRICAL EQUIPMENT SHALL BE FURNISHED IN NEMA 3R RATED ENCLOSURES.

E. PROVIDE REVISED TYPE WRITTEN PANELBOARD DIRECTORY CARDS AND LABELS REFLECTING ALL REMOVED AND ADDED CIRCUITS.



3/E2 EQUIPMENT MOUNTING
NOT TO SCALE



2/E2 RISER DIAGRAM — PROPOSED
NOT TO SCALE

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RISER DIAGRAMS

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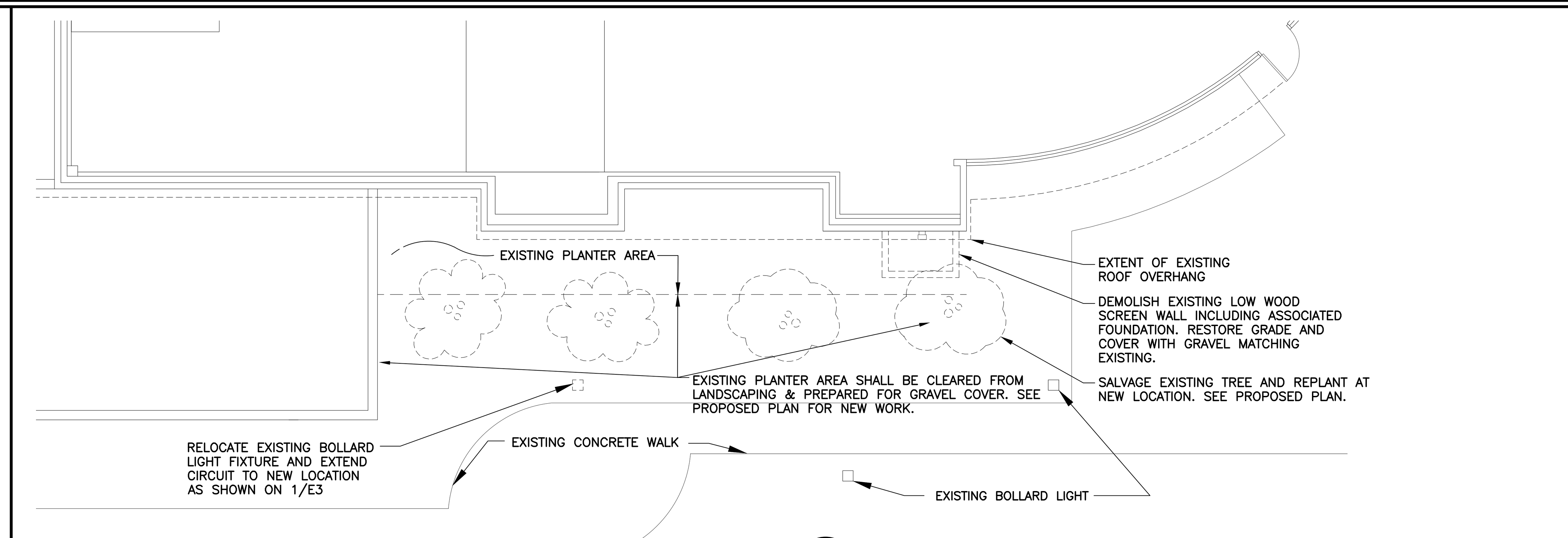
JOB#13-068

E2

OF 3



5 PARTIAL FIRST FLOOR & SITE PLAN– DEMOLITION
E3 SCALE: 1/8"=1'-0"

DRAWING GENERAL NOTES

A. FOR SYMBOLS, ELECTRICAL NOTES, ABBREVIATIONS, AND SPECIFICATIONS REFER TO DRAWINGS T1.

B. DEVICES SHOWN WITH AN 'E' ARE EXISTING TO REMAIN. MAINTAIN CONTINUITY OF EXISTING CIRCUITS TO REMAIN. PROTECT ALL EXISTING DEVICES TO REMAIN FROM DAMAGE DURING CONSTRUCTION.

C. CONTRACTOR MAY REUSE EXISTING, IN PLACE CONDUIT AT HIS OPTION. ALL REUSED CONDUIT MUST MEET THE SPECIFICATION FOR TYPE, USE AND INSTALLATION AND BE WARRANTED AS NEW BY THE CONTRACTOR. TYPICAL FOR ALL REFERENCES MADE TO REUSING EXISTING CONDUIT THROUGHOUT THE PROJECT.

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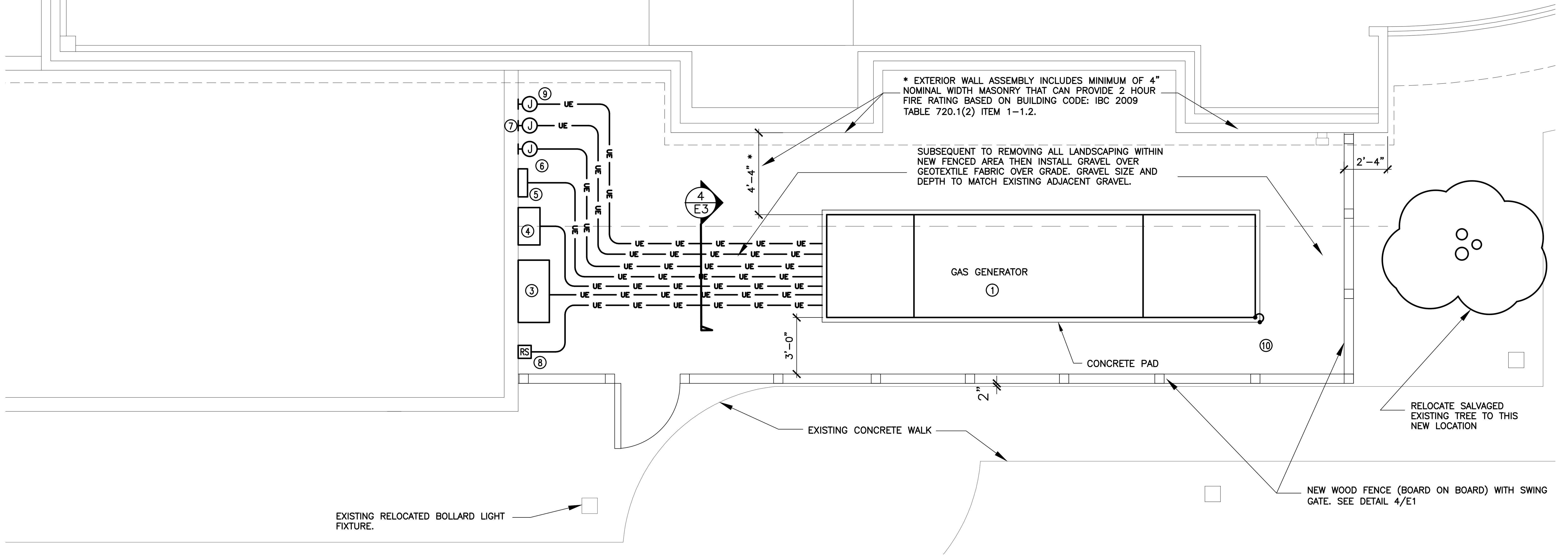
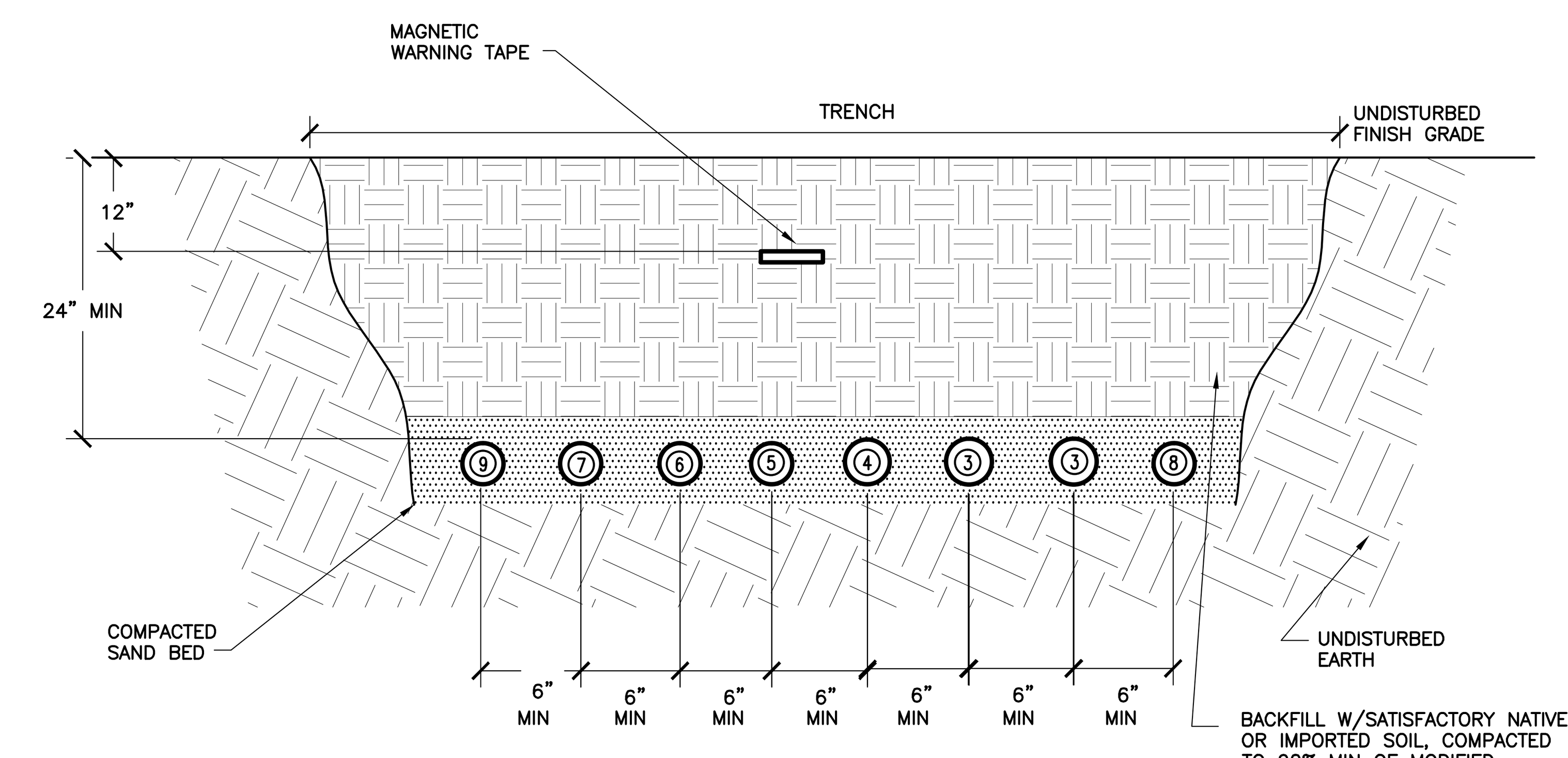
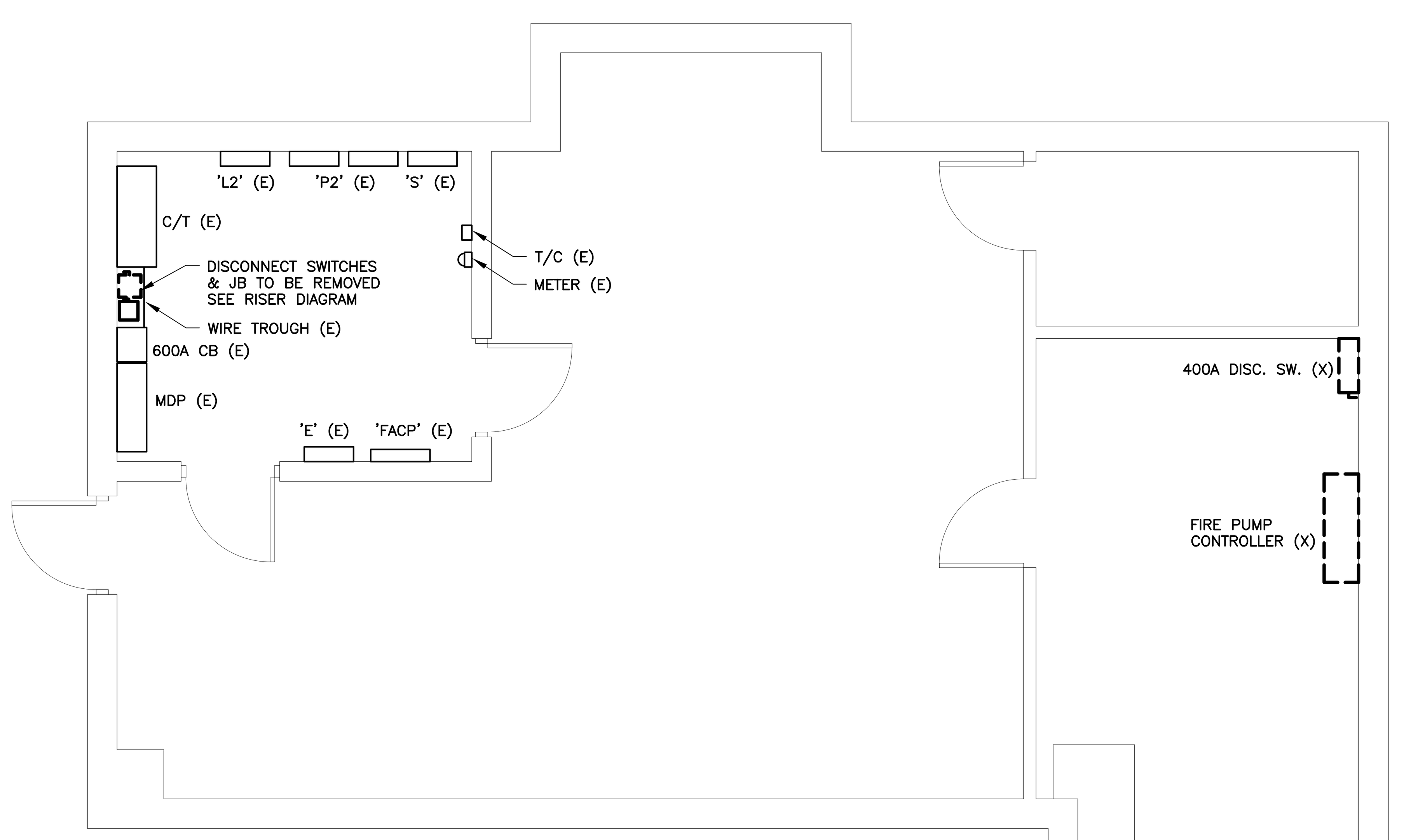


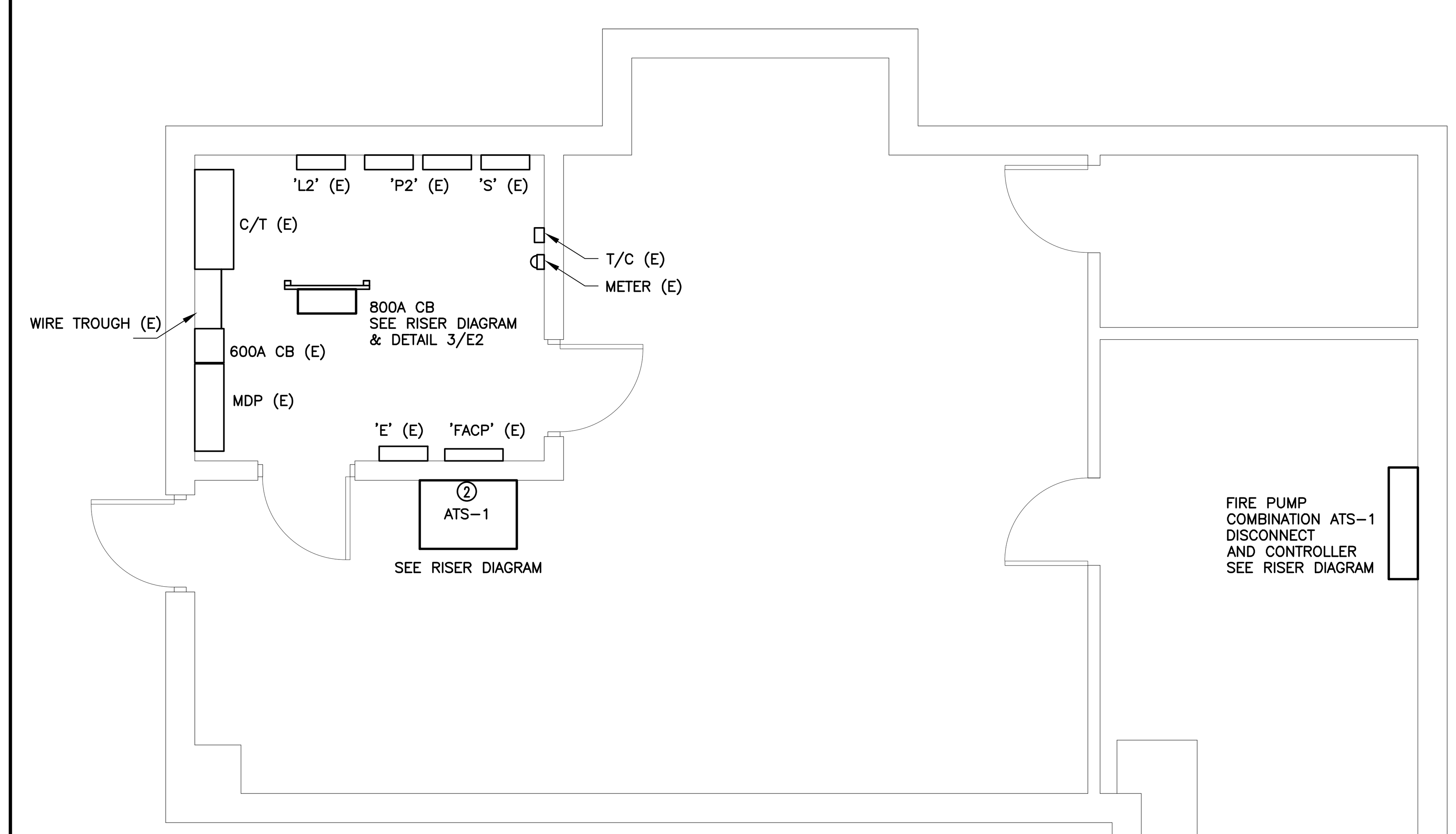
1 PARTIAL FIRST FLOOR & SITE PLAN– PROPOSED
E3 SCALE: 1/4"=1'-0"



4 TYPICAL CONDUITS TRENCHING DETAIL
E3 NOT TO SCALE



2 BASEMENT FLOOR PLAN – DEMOLITION
E3 SCALE: 1/4"=1'-0"



3 BASEMENT FLOOR PLAN – PROPOSED
E3 SCALE: 1/4"=1'-0"

DRAWING NOTES

1. PROVIDE CUMMINS GASEOUS FUEL GENERATOR SET GTA19G CC ENGINE SERIES, 300KW/375KVA, 1041A, 208V, 3 PHASE OR SIMILAR.
REFER TO RISER DIAGRAM FOR CONNECTIONS. HAND EXCAVATE TO LOCATE COMMUNICATIONS CABLES. PROVIDE SLEEVES AT FOOTING PENETRATIONS. PROVIDE GENERATOR PAD. REFER TO SECTION 1/E1.
2. DISCONNECT SWITCHES FOR ATS–1 AND FIRE PUMP. SEE RISER DIAGRAM FOR CONNECTIONS.
3. PROVIDE 800A, 240V, 3 POLE, DOUBLE–THROW, CENTER OFF SWITCH IN NEMA 3R ENCLOSURE WITH INTERLOCK KIT FOR CONNECTION OF FUTURE TEMPORARY GENERATOR. ROUTE CONDUITS @ MINIMUM OF 24" BELOW GRADE SEE RISER DIAGRAM.
4. PROVIDE 200A, 240V, 3 POLE, DOUBLE–THROW, CENTER OFF SWITCH IN NEMA 3R ENCLOSURE WITH INTERLOCK KIT FOR CONNECTION OF FUTURE TEMPORARY GENERATOR. SEE RISER DIAGRAM.
5. GENERATOR CONNECTION BOX. RUN 1" PVC. SEE DETAIL 1/E1 AND RISER DIAGRAM ON DRAWING E2.
6. PROVIDE WEATHER TIGHT JUNCTION BOX AND RUN 4#10+1#12G IN 3/4" PVC TO GENERATOR FOR BATTERY CHARGER AND CONTROL POWER.
7. PROVIDE WEATHER TIGHT JUNCTION BOX AND RUN 2#10+1#10G IN 3/4" PVC TO GENERATOR FOR JACKET WATER HEATER. COORDINATE POWER REQUIREMENTS WITH GENERATOR MANUFACTURE PRIOR TO ROUGH–IN. (TYP OF 3)
8. ROUTE 2#12+1#12G IN 1"PVC TO GENERATOR FROM LABELED REMOTE MANUAL STOP STATION. CONNECT PER GENERATOR MANUFACTURER'S INSTRUCTIONS.
9. 1" PVC CONDUIT FOR RGAP CONNECTION CABLE. SEE RISER DIAGRAM. MOUNT RGAP IN RECEPTION AREA APPROXIMATELY 150 FEET FROM GENERATOR.
10. CADWELD #2 BTC GROUND WIRE TO RE–BAR IN GENERATOR FOOTING AND CONNECT TO THE EXTERIOR FRAME OF THE GENERATOR.

SWSG
SHAFFER WILSON SARVER & GRAY
1821 Michael Faraday Drive
Suite 302
Reston, VA 20190
703–471–6803
A PROFESSIONAL CORPORATION
Engineering • Architecture • Construction Management

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FLOOR PLANS

LITTLE RIVER GLEN STANDBY GENERATOR
4001 BARKER CT
FAIRFAX, VA 22032

JOB#13-068

E3

OF 3